

# Application to DHCD Submitted through CAMS

Mecklenburg County

Meck Co/Empower-Tanglewood Shores FTTH 2021

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**Application ID:** 75707202020112319  
**Application Status:** In Progress - DHCD  
**Program Name:** Virginia Telecommunications Initiative 2021  
**Organization Name:** Mecklenburg County  
**Organization Address:** 350 Washington Street  
Boydton, VA 23917-0307  
**Profile Manager Name:** Nancy Rowe  
**Profile Manager Phone:** (434) 738-6191  
**Profile Manager Email:** nancy.rowe@mecklenburgva.com

**Project Name:** Meck Co/Empower-Tanglewood Shores FTTH 2021  
**Project Contact Name:** Michele Taylor  
**Project Contact Phone:** (434) 636-2274  
**Project Contact Email:** mtaylor@meckelec.org  
**Project Location:** P.O.Box 129  
Bracey, VA 23919-0129  
**Project Service Area:** Mecklenburg County

**Total Requested Amount:** \$449,381.00

**Required Annual Audit Status:** Accepted

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## Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
<b>Telecommunications</b>	<b>\$449,381.00</b>	<b>\$1,048,556.00</b>	<b>\$1,497,937.00</b>
Construction	\$449,381.00	\$1,048,556.00	\$1,497,937.00
<b>Total:</b>	<b>\$449,381.00</b>	<b>\$1,048,556.00</b>	<b>\$1,497,937.00</b>

## Budget Narrative:

The funds requested by both the applicant and co-applicant from VATI funds will be used for the costs of both aerial (\$282,861) and underground (\$101,513) construction and drop construction (\$65,007) of the proposed fiber system for a total amount of \$449,381. MEC and EMPOWER Broadband will provide an in-kind match of \$1,048,556 that will be used for the remaining construction costs, as well as, the following: Outdoor Wall Mount Labor and Materials, Splicing Labor and Materials, Staking Labor, ONT (router) labor and Materials, Net work Equipment that consists of E7-2 Package Chassis, GPON SFP OIM, Class B+ 1490/1310nm and E7-2 8 Card PON Unit. These costs are listed in detail in the derivation of costs that is attached and labeled Attachment 11.

## Questions and Responses:

### 1. Project Description and Need

Describe why and how the project area(s) was selected. Describe the proposed geographic area including specific boundaries of the project area (e.g. street names, local and regional boundaries, etc.). Attach a copy of the map of your project area(s). Label map: Attachment 1 – Project Area Map.

### Answer:

This proposed project area referred to as Tanglewood Shores, is located in the southeastern portion of Mecklenburg County; Mecklenburg is in the heart of Southside Virginia along the border of North Carolina. Fiber deployment will utilize foundational backbone infrastructure and VATI funds will serve to expand off the already funded backbone to decrease the number of individuals that currently do not have access to broadband internet. The fiber will be built along the 3-phase Mecklenburg Electric Cooperative (MEC) electric infrastructure that runs along the following roads: Tanglewood Drive, Hemlock Drive, Aspen Way, Holly Ct., Fairway Ct., Maplewood Lane, Divot Ct., Longwood Drive, Beechwood Drive, Chestnut Drive, Locust Drive, Hawthorne Drive, Alder Drive, Almond Ct., Mulberry Lane, Elm Court, Elder Court, Ash Court, Citron Court, Magnolia Court, Hickory Court, Fig Court, Walnut Drive, Myrtle Place, Cedar Court, Cypress Court, Laurel Court, Sycamore Court, Juniper Court, Birch Court, Fairview Terrace, Spruce Court, Co Co Court, and a portion of Blackridge Road. This project passes approximately 414 locations and proposes the deployment of 22.35 miles of Distribution and Access class fiber by extending fiber-to-the-premises for those within the project boundaries. This area includes a Community Center for community functions & dinners along with a library with books & DVD's, snack bar, card room, full kitchen & Pro Shop.

This area was selected to maximize the advantage of being adjacent to MEC's Substation Fiber Backbone that has

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been constructed with matching funds through a 2018 Virginia Tobacco Region Revitalization Commission (TRRC) Grant and is part of a larger nine (9) county joint project to provide fiber-to-the-premises. Additionally, this route passes many rural residents and will provide broadband opportunities to 414 homes and home-based businesses in Mecklenburg County. Most important to this grant, this area is unserved as defined by the DHCD grant criteria and is not part of any other existing or proposed high-speed system build-out, other than the one described above and being built by EMPOWER. The project area is currently served by EMPOWER's DSL service (who is the incumbent carrier), but it does not meet the required 10/1 Mbps or 25/3 Mbps threshold that DHCD requires for an area to be qualified as served.

Tanglewood Shores is a community comprised of households that are unable to receive internet speeds of 10 Mbps down and 1 Mbps up. This rural community increasingly faces challenges due to slow, sporadic and limited broadband services. They rely on broadband service to connect them to the global marketplace for basic lifestyle needs such as education, distance learning, teleworking, telemedicine and entertainment. Empower has been working one on one with the Homeowner's Association who has provided the following information regarding the need in this proposed unserved area by an email survey conducted on the residents. The email questionnaire and some of the responses are included in Attachment 10. .

There are approximately twelve (12) home-based businesses that consists of construction services, photography, web and social media designer, food services, just to name a few, that require higher internet speeds in order to achieve competitiveness; and by using e-commerce, these businesses would have the option of providing goods that would not normally be available in our area.

There are approximately twenty-seven (27) that state they work from home. An individual who wishes to work from home must have access to the internet to effectively communicate with the prospective employer; the telecommuting/teleworking job market requires no less than 10 Mbps down and 1 Mbps up.

There are approximately fifty-three (53) school age children that live within the proposed area along with numerous college age students who will be taking virtual classes. Speed and a consistent connection are imperative for educational purposes. The option of pursuing online classes becomes bleak with poor broadband service.

This area does not have means of public transportation for those unable to drive to appointments. The ability to visit a doctor online with the use of telecommunications and information technology will help to overcome distance barriers and to improve access to medical services that would often not be consistently available in distant rural communities. Telemedicine is also used to save lives in critical care and emergency situations. There are at least 4 first responders and essential health care workers such as doctors, nurses, therapists and hospital workers who reside in the project area.

The issues faced on a daily basis by this community are the inability to 1) obtain educational information, 2) home school children, 3) work from home, 4) operate a home-based business, 5) apply for a job, and 6) access health records and perform research. In summary, this community is severely limited by its disconnection to the internet global economy.

Additionally, Southside Virginia is perhaps the Commonwealth's most disadvantaged region; this project promotes both education and economic development, of which both are required to deliver desperately needed jobs. It should be further noted that in a 2014 Weldon Cooper study, Virginia's Southside Region was the only region to lose population. Regretfully, our region also demonstrated the highest levels of poverty. Subsequently, one cannot

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understate the value of delivering Mainline Fiber Distribution facilities into the rural areas of Southside Virginia. Accordingly, this grant request is a high priority for EMPOWER and we hope one for the Commonwealth.

2. List existing providers in the proposed project area and the speeds offered. Please do not include satellite. Describe your outreach efforts to identify existing providers and how this information was compiled with source(s).

**Answer:**

Mecklenburg County and its residents were substantially engaged in the Center for Innovative Technology (CIT) broadband survey; the results are documented in the Virginia Broadband Availability Map. The CIT broadband map also provided the current existing providers for each census block in Mecklenburg County. Data was also collected from the Federal Communications Commission's (FCC) "Fixed Broadband Deployment" as an additional source to determine the current providers in the project areas. The FCC Broadband Map shows that EMPOWER (formally BIT) is the only provider of broadband (DSL) in the proposed area, but broadband speeds of at least 25Mbps/3Mbps and very limited 10Mbps/1Mbps are not available to any household in the proposed area due to the distance from the DSL equipment.

EMPOWER is currently the exclusive Incumbent local exchange carrier (ILEC) for the Tanglewood Shores area, other than satellite and cellular broadband service providers which operate with data caps. There are currently no wireless broadband providers in or near the proposed area. The included coverage maps document the need in this area and reinforces the statements from members within the county overall.

3. Describe if any areas near the project have received funding from federal grant programs, including but not limited to Connect America Funds II (CAF II), ACAM, ReConnect, and Community Connect. If there have been federal funds awarded near the project, provide a map verifying the proposed project area does not conflict with these areas. Describe if there are Rural Digital Opportunity Fund (RDOF) eligible census blocks located in the proposed project area. Label Map: Attachment 2 – Documentation on Federal Funding Area.

**Answer:**

The proposed project area and any areas near the proposed project area have not been a recipient of federal grant programs. The proposed EMPOWER fiber build out area is not eligible for funding through Connect America Funds II. The attached maps (Attachment #2) from the FCC website further supports that the area is not served by federal funding. The green highlighted areas depict the areas that are eligible for CAF II funding; the EMPOWER project is not located in the eligible areas. EMPOWER's serving area does not include any census blocks that are eligible for the Rural Digital Opportunity Fund (RDOF) since this area is already served by EMPOWER, who is the incumbent local exchange carrier that provides service to its territory and is committed to bringing ultra-high speed to its communities. EMPOWER is also not receiving ACAM funding as offered by the FCC, but rather remains a Rate-of-Return carrier and receives support based off of voice lines and/or data only lines.

Supporting source of information below and included in Attachment 2:

<https://www.fcc.gov/maps/connect-america-phase-ii-final-eligible-areas-map/>

<https://www.fcc.gov/reports-research/maps/auction-904-preliminary-eligible-areas/>

4. Overlap: To be eligible for VATI, applicants must demonstrate that the proposed project area(s) is unserved. An

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unserved area is defined as an area with speeds of 25/3 mbps or less and with less than 10% service overlap within the project area. Describe any anticipated service overlap with current providers within the project area. Provide a detailed explanation as to how you determined the percentage overlap. Label Attachment: Attachment 3 – Documentation Unserved Area VATI Criteria.

**Answer:**

EMPOWER is currently the only facility-based provider in the area and offers ADSL2+ with speeds up to 10/1 Mbps two miles from the base remote. Since this is the case, there is no overlap within the project area.

EMPOWER serves the Tanglewood Shores community and currently offers ADSL2+ service from a remote, but only a few customers are located close enough to the remote to get 10/1 Mbps. Most all of the Tanglewood residents live beyond the 2-mile service area, thus 10/1 Mbps has very limited availability and 25/3 Mbps is not available. Of the 414 locations located in the proposed unserved area, approximately 225 currently have Empower's DSL service but cannot achieve speeds up to 25/3 Mbps.

Attachment #3 includes a chart that illustrates the drop in DSL speeds to customers that are located beyond the 2-mile range from the remote. 2 miles = 3,218 meters which is approximately 8 Mbps. EMPOWER's testing confirms that 2 miles is the limit to receive 10 Mbps.

Source for graph: [https://www.internode.on.net/residential/broadband/adsl/easy\\_broadband/performance/](https://www.internode.on.net/residential/broadband/adsl/easy_broadband/performance/)

Source for graph: <https://nbnmyths.wordpress.com/why-not-fttn/>

Also included in Attachment 3 is the list of providers in the proposed serving area gathered from the FCC website:

<https://www.fcc.gov/reports-research/maps/fixed-broadband-deployment-data/#lat=36.587414&lon=-78.052068&zoom=14>

Also provided as Attachment 15 are copies of speed tests that were conducted by the project area residents. An email was sent with the results following.

5. Total Passings: Provide the number of total serviceable units in the project area. Applicants are encouraged to prioritize areas lacking 10 Megabits per second download and 1 Megabits per second upload speeds, as they will receive priority in application scoring. For projects with more than one service area, each service area must have delineated passing information. Label Attachment: Attachment 4 – Passings Form
  - a. Of the total number of passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area. Describe the methodology used for these projections.
  - b. Provide the number of serviceable units in the project area that have 10/1 mbps or less. Describe the methodology used for these projections.

**Answer:**

This project is defined as 22.35 miles of new plant construction, passing approximately 414 locations; all 414 households are currently located within EMPOWER's DSL service area but are considered unserved according to DHCD definition because of the distance from the closest remote equipment. EMPOWER anticipates a take rate of 80%. This is based on the current take rate that Empower is experiencing within its current network. Empower has

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approximately 2,855 telephone lines of which 2,335 have subscribed to internet service, resulting in a take rate of 80%. According to maps from internal GIS systems, the area proposed has 414 MEC electric accounts located with the proposed fiber build-out. This would mean that within the first year of project completion, 332 locations are expected to have broadband services provided.

Of the 414 locations located in the proposed unserved area, approximately 225 currently have Empower's DSL service but cannot achieve speeds up to 10/1 Mbps, much less 25/3 Mbps. Of the 414 locations, all are listed as residential, but according to the email letters of support provided by the Homeowner's Association, at least twelve (12) state they have home-based businesses or work from home and desperately need higher internet speeds. See Attachment 4-Passings Form. The project area is extremely rural and mainly residential and currently does not include any community anchor institutions or larger businesses. The email letters of support also addressed the issue of residents needing higher internet speeds for educational purposes, as many as fifty-three (53) school-aged children, possibly more that did not respond to the email survey, reside there.

One of the greatest challenges in selecting an area for broadband expansion is choosing one with many community anchors such as schools, libraries, community centers, etc. The areas within the service territory that have these institutions are in areas that are within the densely populated localities and, therefore, already have broadband services available. Due to the lack of broadband in the areas we serve and have selected, these institutions are not readily available; however, through the support of VATI funding, these areas will now have access to the tools that will allow community anchor institutions to be developed, grow and thrive. VATI, along with the applicant and co-applicant, share the same goal to bring much needed broadband to rural Virginia; however, to overlook rural areas due to a lack of community anchors would be a great disservice, as broadband access and community anchors tend to go hand in hand. It would also be in opposition to Governor Northam's vision as written on page 5 of the Commonwealth Connect Plan, where "everyone has the infrastructure necessary to access the internet."

The availability of high-speed internet will entice businesses to move here which will overall boost the local economy and create jobs essentially keeping our young people in the community. Due to the COVID-19 pandemic, there is an immediate increased need for reliable internet service in rural Virginia, including expanded rural broadband capacity to facilitate and assist with distance learning, telemedicine, and telework, which are required for citizens to continue their education, receive necessary services, and work in a healthy and safe environment. Never has the digital divide been more prevalent, work-from-home, school-from-home, remote healthcare and critical online government services all require broadband connectivity. We all need to embrace lessons learned from COVID-19 to improve and enhance our infrastructure towards building a true 21st Century Network while governments recognize gigabit-class broadband as the necessary utility for today's age.

6. For wireless projects only: Please explain the ownership of the proposed wireless infrastructure. Please describe if the private co-applicant will own or lease the radio mast, tower, or other vertical structure onto which the wireless infrastructure will be installed.

**Answer:**

N/A.

This application is for a fiber-to-the-premise construction project.

7. Speeds: Describe the internet service offerings, including download and upload speeds, to be provided after

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completion of the proposed project. Detail whether that speed is based on dedicated or shared bandwidth, and detail the technology that will be used. This description can be illustrated by a map or schematic diagram, as appropriate. List the private co-applicant's tiered price structure for all speed offerings in the proposed project area, including the lowest tiered speed offering at or above 25/3 mbps.

**Answer:**

EMPOWER Broadband, Inc. is using the Calix implementation of Gigabit Passive Optical Network (GPON). GPON is a fiber-to-the-premises (FTTP) technology that implements point-to-multipoint architecture to serve residential and business customers and provide up to 1 Gbps service per subscriber. This technology utilizes fiber optic splitters to enable up to 64 customer locations to be served by a single optical line terminal (OLT) port. Below is an example of how the bandwidth is shared utilizing the preferred 1:32 fiber split:

Residential packages offered to residents along the proposed project route would be as follows:

50 Mbps/50 Mbps - \$69.95/month (optional VOIP telephone service at \$30/month)

100 Mbps/100 Mbps - \$119.95/month (optional VOIP telephone service at \$30/month)

1 GB - \$269.95/month (optional VOIP telephone service at \$30/month)

Business packages offered to enterprises along the proposed project route would be as follows:

50 Mbps/50 Mbps - \$89.95/month (optional VOIP telephone service at \$34.95/month)

100 Mbps/100 Mbps - \$139.95/month (optional VOIP telephone service at \$34.95/month)

All business packages larger than 100Mbps/100Mbps would require a consultation for a customized quote.

See graph below:

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8. Network Design: Provide a description of the network system design used to deliver broadband service from the network's primary internet point(s) of presence to end users, including the network components that already exist and the ones that would be added by the proposed project. Provide a detailed explanation of how this information was determined with sources. If using a technology with shared bandwidth, describe how the equipment will handle capacity during peak intervals. For wireless projects, provide a propagation map for the proposed project area with a clearly defined legend for scale of map. Label Map: Attachment 5 – Propagation Map Wireless Project.

**Answer:**

Last Mile Service Delivery will use Calix customer premise equipment. The fiber drop terminates to a Network Interface Device (NID) outside the premises. From there, single-mode fiber with Angled Physical Connectors (APC) is used to connect to a Calix 803G Optical Network Terminal (ONT) device inside the premises. The 803G in turn uses an Ethernet port with inside wiring of a standard Ethernet cable to connect the ONT to a Calix Model 844e Gigacenter. The 844e provides wired and Wi-Fi connections inside the premise for internet service. The Gigacenter's Wi-Fi service uses both 2.4 Ghz and 5.0 Ghz bands. An optional wireless mesh device, the 804 Mesh Extender, can be used in large homes or businesses to extend the range of the wireless service. The 803G ONT also contains a voice port, which connects to an existing telephone NID via RJ-11 cable for the optional Voice over IP (VoIP) service. The ONT is powered from either a standard AC wall outlet, or also can be connected to an optional Lithium-ion battery back-up unit. The last mile network uses an overall tree and branch design for the access network. Each end customer has a fiber connection in the home or business. Layer2 switching connects the end user back to a Calix e7-2 access device which transmits light on the fiber with a GPON small form-factor plug (SFP). E7 C+ SFP's have a 32-way split capable of reaching 32km, which puts all accounts within range of the serving area and is also the location of the e7-2's and an edge router. Layer 2 segments are trunked up to the edge router and then one of the centralized aggregation routers. Aggregation routers are being installed in Chase City and Gasburg. Aggregation routers are connected to a redundant Internet Data Provider using multiple 10Gb connections across a Mid-Atlantic Broadband (MBC) open-access network. The diagram below is the physical infrastructure and long-term plan, ultimately showing the location of all major network nodes, creating a highly redundant network. Each of the nine (9) larger highlighted substations contain a major network node with a Layer 3 router that is locally ringed together with 10Gb fiber uplinks.

9. Project Readiness

Describe the current state of project development, including but not limited to: planning, preliminary engineering, identifying easements/permits, status of MOU or MOA, and final design. Prepare a detailed project timeline or construction schedule, identifying specific tasks, staff, contractor(s) responsible, collection of data, etc., and estimated start and completion dates. Applicants must include Memorandums of Understanding (MOUs) or Memorandums of Agreement (MOAs) between applicants (drafts are allowable). Label Attachments: Attachment 6 – Timeline/Project Management Plan; Attachment 7 – MOU/MOA between Applicant/Co-Applicant.

**Answer:**

This project is ready to enter the final design phase as planning and preliminary engineering are completed. Each segment of this project has been included in MEC's overall fiber network "tree and branch" design; this includes

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anticipation of substation network hardware, fiber splitting, and fiber loops. Additionally, through our knowledge of the area, each project area has been selected to maximize existing main line pole infrastructure and minimize make ready work. These areas have also been selected to reach further into these unserved areas by creating the next fiber class for MEC's fiber expansion. The first tier or class, Backbone, is substantially underway and almost complete while this application focuses more on the deployment of Distribution Class (FTTH Mid-Mile) fiber along with the required Access Class fiber (last mile) and Drops.

All fiber cable will follow the electrical system and will be installed on or adjacent to existing distribution facilities within the existing right-of-way. This allows the use of MEC's Geographic Information System for the determination of required fiber length along with classification as Distribution, Access, or Drops to facilitate the determination of fiber count for each respective use. Typically, the MEC-EMPOWER system uses 144 count fiber for Backbone, 48 and 24 count fiber for Distribution, and 12 count for routes deemed as Access.

Within 30 days of the notice of Grant award, MEC staff will complete the final fiber layout in the project area. This will include detailed GPON fiber splits, splice can location, and final material list to proceed with purchase orders. VDOT and railroad crossings have been identified and permit requests will be filed and substantially completed within this allocated time period. Residents benefiting from an awarded grant will be notified by letter of the pending deployment and the use of construction crews to complete the work.

MEC's Senior Field Engineering Technician will confirm the final design layout checking clearances, splice can size, and splice can location to ensure future fiber deployment to other unserved homes and businesses. As a part of the confirmation process, MEC will assign contract staking engineers, with Booth and Associates Consulting Engineering, to visit each pole to confirm height and space for cable placement. Additionally, each pole will be checked to confirm selection of appropriate mounting hardware for the line angle and for review of modifications needed for cross arm or vertical pole construction.

As a result of the field review, technicians will identify all make ready work and associated poles requiring replacement. This final layout will be assigned to Davis H. Elliot or River City Construction crews to complete all make ready followed by Distribution and Access Class fiber installation. Make ready and fiber installation activities are scheduled for 20 weeks.

Each 144-count fiber reel is 9,000 feet in length; such higher count fiber splicing will be performed by S&N Communications while Distribution class lower count cables will be spliced by MEC's fiber technicians. It is expected fiber splicing will require four – six weeks.

While Construction Crews perform make ready work and install fiber, Booth and Associate Field Technicians will visit each subscriber's location to plan for the Drop installation. MEC crews will then perform the Drop installation to the home. TripleT Connections will install the NID (Network Interface Device) and the Router/ONT. Drop and ONT installation is set for 20 weeks as it will be completed concurrently with Distribution and Access fiber construction deployment.

Both Mecklenburg County and Empower Broadband have the common goal and responsibility of serving the citizens of Mecklenburg County. We share the objective to resolve the complication and plight of the massive digital divide between Southside Virginia and other areas of the Commonwealth. Collectively, we have heard from residents calling for resolution to this significant dilemma; our teams, including the County Administrator, the Board of Supervisors, the County's Broadband Committee Chair, MEC CEO, MEC's Board of Directors, and MEC

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staff have elected to work together to deliver a needed solution. Accordingly, MEC created EMPOWER Broadband to effect just such a change.

As MEC-EMPOWER are jointly applying with Mecklenburg County, Mecklenburg shall administer the grant and serve in a project oversight role to accomplish the grants goals and objectives.

The County's Board of Supervisors has approved this grant application; however, this relationship goes much further and deeper. This is demonstrated by the County evaluating the waiver of taxes on fiber and related FTTH equipment.

Included as an attachment is a copy of the fully executed agreement between Mecklenburg County and Empower Broadband. The prescriptive requirements of the agreement stipulate that EMPOWER will pass 414 locations to the EMPOWER fiber infrastructure and offer internet subscription services within 18 months of execution of the agreement. Mecklenburg County and EMPOWER Broadband will expand the terms of the existing agreement with approval of the proposed 2021 VATI grant.

See Attachment 6 – Timeline/ProjectManagement Plan and Attachment 7 – MOU/MOA between Applicant/Co-Applicant.

10. Matching funds: Complete the funding sources table indicating the cash match and in-kind resources from the applicant, co-applicant, and any other partners investing in the proposed project (VATI funding cannot exceed 80 percent of total project cost). In-kind resources include, but are not limited to: grant management, acquisition of rights of way or easements, waiving permit fees, force account labor, etc. Please note the a minimum 20% match is required to be eligible for VATI, the private sector provider must provide 10% of the required match. If the private co-applicant's cash match is below 10% of total project cost, applicants must provide financial details demonstrating appropriate private investment. Label Attachments: Attachment 8 - Funding Sources Table; Attachment 9 – Documentation of Match Funding.

**Answer:**

The total cost of the proposed project areas is \$1,497,937 to pass 414 locations and to provide broadband service to 332 locations during the first year. For this project, the applicant and co-applicant are requesting \$449,381 in VATI grant monies which constitutes 30% of the total project cost and breaks down to \$1,085 per location passed. The co-applicant, Mecklenburg Electric Cooperative and EMPOWER Broadband, is contributing \$1,048,556 in in-kind funds towards the project to be used for network equipment and towards construction efforts to complete the project build-out. The applicant Mecklenburg County is contributing in the assistance of data collection, consulting services and waiver of county permits and fees, while also aiding to secure any state permits that are needed for the construction of the project.

See Attachment 8-Funding Sources Table and Attachment 9-Documentation of Match Funding

11. Leverage: Describe any leverage being provided by the applicant, co-applicant, and partner(s) in support of the proposed project.

**Answer:**

Several factors played a vital part into the selection of the proposed project areas that can be viewed as leverage. One of the biggest factors that went into the selection process was the pre-existing resources that have already been

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built in the area by MEC and its subsidiary EMPOWER Broadband. These project areas can be easily constructed off a pre-existing fiber backbone that is part of a 135-mile fiber backbone project funded in a partnership with MEC and the Virginia Tobacco Region Revitalization Commission (TRRC). These areas were not eligible in the original backbone project but could be served through this round of VATI funding and complete a portion of the county that would now be served and, in essence, “fill in the gap.” Additional factors of leverage that factored into our decision to pursue additional construction in these areas was the direct result of Mecklenburg County officials, both paid officials and elected representatives on the Board of Supervisors, reaching out to EMPOWER Broadband staff asking that we partner with them and pursue broadband expansion projects in the proposed areas. EMPOWER has followed through with the projects that had been discussed with county officials by constructing infrastructure and serving county residents with broadband services; thus, leading to a continued partnership.

Furthermore, the residents in these areas have also added additional leverage, as those in the community have worked hard to share with their neighbors about the projects and we have written commitments from a large majority of those living along the route, who have agreed to take the service once the project has received VATI approval. EMPOWER utilizes a business principle where revenue generated from those receiving services is used to further expand broadband expansion in other areas. This community commitment means that revenue will be readily available to expand broadband services in other areas that have yet to receive funding of any type.

The Homeowner’s Association for the Tanglewood Shores area played a huge role in delivering information to the residents regarding EMPOWER’s plan to build fiber to their area by applying for this VATI grant. The Association collected vital information needed for the application and spent hours determining the number of school age children, home based businesses and individuals who work from home. These residents have taken an active role to ensure they receive the proper broadband speeds needed for today’s society.

12. Marketing: Describe the broadband adoption plan.

a. Explain how you plan to promote customer take rate, including marketing activities, outreach plan, and other actions to reach the identified serviceable units within the project area. Provide the anticipated take rate and describe the basis for the estimate.

b. Describe any digital literacy efforts to ensure residents and businesses in the proposed project area sufficiently utilize broadband. Please list any partnering organizations for digital literacy, such as the local library or cooperative extension office.

**Answer:**

a. The feasibility conducted by Pulse broadband for the entire MEC area, based on National statistics from cooperative areas like ours with similar service offerings in a rural setting, estimates the take rate (number of homes expected to subscribe for services) for the entire EMPOWER serving area to be 45 percent within one-year of project completion. This expected take rate is also based off research conducted and adopted by the Pew Research Institute. However, this proposed project area, Tanglewood Shores, that is located within EMPOWER’s ILEC (Incumbent Local Exchange Carrier), should receive a much higher take rate, which we estimate to be 80%, due to the fact that EMPOWER currently provides phone service there and is based off the take rate from subscribers that sign up for internet. EMPOWER is currently the only facility-based provider in the area so this percentage is based off internal historical data. Accordingly, from the 414 accounts passed, an estimated 332 would take service within the first year. We believe, however, after Broadband discussions with the homeowner’s association in the proposed area and the interest generated by our announcement, that the 45 percent take rate will

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exceed to an easily obtainable and a conservative estimate of 80%.

Once field engineering for the electrical make ready construction begins in the designated area, potential EMPOWER customers will be notified by direct mail that fiber internet services are forthcoming. Once fiber construction begins, potential customers will receive another direct mail letter, including pricing structures and a contract for early sign up. All members who sign up early will receive free installation, a \$100 value for bundled services (internet and fiber) or half-off for internet services only. Additionally, postcard reminders will be mailed three-weeks following the second direct mailer. Once installations begin, door hangers will be placed on all doors at those accounts not already signed up for service and, where allowed, yard signs will be displayed at the properties already receiving EMPOWER services.

In addition to the above direct marketing activities, EMPOWER will set up at local community functions to educate potential customers, as well as the public, and will distribute brochures and promotional items. Social Media platforms for both EMPOWER and MEC, as well as both websites and local printed materials (newspapers and magazines), will be used to notify potential customers.

Information regarding EMPOWER, its services and construction progress is also available at each district location or by telephone.

Please see Attachment 14 for a summarized version of EMPOWER's Marketing Plan and marketing materials to be utilized.

b. At this time, neither Mecklenburg County's Cooperative Extension or public libraries currently utilize or are involved with any form of digital literacy efforts or programs. To help make up for this lack of resources; EMPOWER staff has already worked to create its own digital literacy tools that can help educate those in the community about the world that broadband access can provide. One of these programs is a simple, yet effective open house in which members of the community are invited to join us at one of our facilities, or a selected location within the community, where staff demonstrate the numerous ways that one can use the broadband services in their everyday lives. Attendees can also speak with staff about any issues/questions they may have about the many uses and improvements to their lives. Social media is also another platform in which staff are making great strides to increase digital literacy; brief, informative videos are being created that will highlight certain aspects of the construction process and the ways that the service can be put into use via VoIP services, television streaming, etc. Since the changes brought on by COVID-19, staff members are now creating a Virtual Town Hall meeting that will be open to the public to educate residents on the process involved in the actual construction of fiber-to-the-premise, but also use it as a tool to explain that broadband is more than just internet and can be used in numerous daily activities. Another program that is currently being developed is called "Sr. helping Seniors." This is a program that would utilize volunteers from the local high school senior class who would pair up with a senior citizen from the community in an open to the public program; during this time, the students would serve as a teacher to help explain how to use basic programs not only on a computer, but also devices such as firesticks, Roku, etc. that can be utilized by having access to broadband. Of course, our in-person programs will not be able to take place until the restrictions on gatherings have passed as a result of COVID-19. Virginia Tech also hosts Digital Literacy Symposiums with the most recent having participants exploring online identities through the many roles as students, educators, scholars and more. Resources such as this, though not directly associated with either the applicant or co-applicant, can be easily promoted through the local Cooperative Extension Office to notify county residents.

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13. Project Management: Identify key individuals who will be responsible for the management of the project and provide a brief description of their role and responsibilities for the project. Present this information in table format. Provide a brief description of the applicant and co-applicant’s history and experience with managing grants and constructing broadband communication facilities. Please attach any letters of support from stakeholders. If applicant is not a locality(s) in which the project will occur, please provide a letter of support from that locality. Attachment 10 – Letters of Support.

**Answer:**

The executive team at Mecklenburg Electric Cooperative is responsible for the management of the project. This team is well-positioned and prepared to implement, manage, operate, and sustain the services proposed. Members of the team are included in the table below.

Name	Title	Project Role	Project Responsibilities
Wayne Carter	County Administrator, Mecklenburg County	Project Liaison and Permit Coordinator	Obtains necessary permits for project and serves as a liaison with Mecklenburg County
John C. Lee, Jr.	President and CEO  Mecklenburg Electric Cooperative (MEC)	Project manager	Manager of Overall Project
Carol Ann Jones	Vice President of Finance and Accounting, MEC	Grant Accounting	Tracks grant expenses and prepares reports
David Lipscomb	Vice President of Member Services, MEC and EMPOWER Broadband, INC.	Project Marketing	Advance Project Marketing Program
Brian Woods	Director of Engineering, MEC	Engineering Coordinator	Coordinates engineering plans of fiber infrastructure for project
Robert Lankford	Director of Operations, MEC	Construction Coordinator	Coordinates construction of fiber infrastructure for project

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B. J. Seamans	Vice President of Engineering and Operations, MEC	Engineering & Construction Manager	Oversees all engineering and construction duties for project
Dwayne Long	COO EMPOWER Broadband and Vice President of Information Technology, MEC	Project Manager	Monitor overall progress of project

Mecklenburg Electric Cooperative and EMPOWER Broadband Inc. are currently administering two grants for the TRRC's R&D Last-Mile Broadband Project, one sponsored by Mecklenburg County and one sponsored by Pittsylvania County. Mecklenburg Electric Cooperative was also a recipient of grant funds in partnership with Greensville County, whereby the county was the administrator of the grant and a 2020 VATI grant in partnership with Halifax County. Mecklenburg Electric Cooperative has extensive experience in managing projects similar in scope to the project being proposed in this application. As a current provider of utility services, Mecklenburg Electric Cooperative is required to maintain detailed records and is expected to be held accountable for proper data management and project management on the electric side due to its being a current borrower in good standing with USDA's RUS (Rural Utilities Service). Mecklenburg Electric Cooperative will be enforcing similar accountability and due diligence with the DHCD grant program as well.

On June 17, 2019, Buggs Island Telephone Cooperative (BIT) and EMPOWER signed an agreement to allow BIT to be acquired by EMPOWER in order for the two organizations to combine resources to accelerate the deployment of fiber and the offering of ultra-high-speed internet service to those living in Southside Virginia and northern North Carolina. By March 30, 2020, the acquisition had been approved by the BIT membership, and the appropriate State and Federal agencies. BIT, who was formed by Mecklenburg Electric Cooperative in 1951, provided quality communications services and products in portions of Mecklenburg and Brunswick Counties for 65 years. BIT's experience with managing grants and constructing broadband communications facilities in the Commonwealth is now combined with the MEC/EMPOWER's strengths creating a strong, viable organization prepared and dedicated to our communities in which we serve. BIT was awarded a 2018 VATI grant with a partnership with Mecklenburg County that connected the first fiber to the home in the County and is currently serving approximately 220 households.

Today, MEC and its subsidiary, EMPOWER Broadband, are installing and deploying miles of new fiber. EMPOWER is dedicated to helping provide high-speed internet and voice services to unserved areas with its extensive experience in the design, installation, and maintenance of electric and broadband infrastructure. Today, EMPOWER has approximately 2,855 access lines, over 1,890 DSL internet subscribers, and 640 fiber internet subscribers.

Attachment 10 includes Letters and Emails of Support from both County Officials and Representatives and residents and home-based businesses residing in the proposed serving area of Tanglewood Shores.

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## 14. Project Budget and Cost Appropriateness

**Budget:** Applicants must provide a detailed budget that outlines how the grant funds will be utilized, including an itemization of equipment, construction costs, and a justification of proposed expenses. If designating more than one service area in a single application, each service area must have delineated budget information. For wireless projects, please include delineated budget information by each tower. Expenses should be substantiated by clear cost estimates. Include copies of vendor quotes or documented cost estimates supporting the proposed budget. **Label Attachments:** Attachment 11 – Derivation of Costs; Attachment 12 - Documentation of Supporting Cost Estimates.

### **Answer:**

The funds requested by both the applicant and co-applicant from VATI funds will be used for the costs of both aerial (\$282,861) and underground (\$101,513) construction and drop construction (\$65,007) of the proposed fiber system for a total amount of \$449,381. MEC and EMPOWER Broadband will provide an in-kind match of \$1,048,556 that will be used for the remaining construction costs, as well as, the following:

Outdoor Wall Mount Labor

Outdoor Wall Mount Materials

Splicing Labor

Splicing Materials

Staking Labor

ONT (router) labor

ONT (router) materials

E7-2 Package Chassis

GPON SFP OIM, Class B+ 1490/1310nm

E7-2 8 Card PON Unit

These costs are listed in detail in the derivation of costs that is attached and labeled Attachment 11 and supported by Attachment 12 documenting the supporting cost estimates.

15. The cost benefit index is comprised of three factors: (i) state share for the total project cost, (ii) state cost per unit passed, and (iii) the internet speed. From these statistics, individual cost benefit scores are calculated and averaged together to create a point scale for a composite score. Provide the following:

- a. Total VATI funding request
- b. Number of serviceable units

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c. Highest residential speed available in proposed project area

**Answer:**

a. State Share for total project cost: \$449,381 / Total project cost: \$1,497,937

b. 414 serviceable units passed = \$1,085 per unit passed

c. Internet Speed: The maximum available speed is One Gigabit per second, upload and download.

## 16. Commonwealth Priorities

Additional points will be awarded to proposed projects that reflect Commonwealth priorities. If applicable, describe the following:

a. How the proposed project fits into a larger plan to achieve universal broadband coverage for the locality. Explain the remaining areas of need in the locality and a brief description of the plan to achieve universal broadband coverage.

b. Businesses, community anchors, or other passings in the proposed project area that will have a significant impact on the locality or region because of access to broadband.

c. Unique partnerships involved in the proposed project. Examples include electric utilities, universities, and federal/state agencies.

d. Digital equity efforts to ensure low to moderate income households in the proposed project area will have affordable access to speeds at or above 25/3 mbps.

**Answer:**

Virginia's top priority as presented by the governor of Virginia includes expanding broadband access in rural areas. Statistics show that there are still about 600,000 individuals across our Commonwealth that don't have that access. COVID-19 has really brought these issues into focus for all of us. Now when broadband expansion is discussed, so is COVID-19. We need for people to be able to telework, kids to be able to go to school remotely now because being in classes is challenging in certain parts of the state. "Unfortunately, access to broadband is dispersed unevenly. A digital divide still affects the economic prospects, social connectivity, and educational opportunities available to hundreds of thousands of Virginians. If we are going to ensure all Virginians share in this prosperity, we must ensure citizens who don't currently have access are brought online as quickly and affordably as possible. The uneven distribution of broadband assets is the result of the costs of deploying broadband infrastructure relative to population densities. When many Virginians live in close proximity, it makes economic sense for the private sector to use capital to serve those customers. However, for areas with lower densities, the cost of the infrastructure outweighs the potential revenue that could be gained from customers. In those areas, without government intervention, citizens would not be served". (As stated in the Commonwealth Connect report - <https://rga.lis.virginia.gov/Published/2019/RD109/PDF>).

The Virginia Telecommunications Initiative supports this effort and this grant proposal works favorably with this plan.

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The proposed project area included in this application constitutes one part of a three-part submittal including three counties: Mecklenburg, Halifax and Greenville. The areas in the project proposal are extensions off previously funded projects through the TRRC grant programs and will be vital in “filling the gap” of unserved areas not served by those previous projects. The project area is also an expansion to a fiber backbone construction project consisting of 135 miles of fiber backbone serving portions of six Southside Virginia counties (Pittsylvania, Halifax, Charlotte, Mecklenburg, Brunswick and Greenville). Additionally, approving these applications compounds the funding awarded by the Virginia Tobacco Region Revitalization Commission (TRRC).

In addition to TRRC funds, MEC has received Federal Communication Commission (FCC) Connect America Funds (CAF) to provide service to 848 residents and businesses in southern Brunswick County; and MEC applied and received a USDA ReConnect loan to build fiber to the home passing approximately 844 homes and businesses in portions of Brunswick County. Collectively, these projects represent the commitment of both MEC and EMPOWER Broadband to provide reliable high-speed broadband service to residents of Southside Virginia.

The proposed project area, along with the current backbone project, will provide the foundation to ultimately deploy fiber-to-the-home across nine different Virginia counties that MEC serves. Since receiving clearance from the Virginia State Corporation Commission (SCC), 125 miles of backbone fiber has been constructed and residents in those areas have already begun receiving the best in high-speed fiber broadband services.

This project will also provide additional sites to be utilized as neighborhood hotspots, for areas that services have yet to be built. These hotspot sites would provide broadband access for county residents who currently lack access to high-speed broadband throughout the community. This is a need that has been brought forth in the spotlight due to the current COVID-19 pandemic; numerous households have found themselves struggling to continue their work and education from home without access to broadband services. While it is acknowledged that this cannot be a permanent fix, it will serve as a “extra” use of the VATI funds and provide much needed relief to numerous families outside the project area and the MEC/EMPOWER service territory.

Again, due to the extreme rural nature of the area that comprises Mecklenburg County and MEC/EMPOWER’s service territory, new community anchors have had an almost impossible task of being established due to the lack of broadband access and those anchors that were in existence in years past, have gone by the wayside because they were not able to continue functioning in today’s technologically-driven world. However, the availability of high-speed broadband internet through this project area would bolster the opportunities for these communities, but also provide for the opportunity for valuable community anchors to establish themselves in the area and serve not only the communities they are in, but also neighboring communities.

As a subsidiary of Mecklenburg Electric Cooperative, EMPOWER Broadband enjoys a unique advantage in the development and construction of broadband infrastructure in that both parties share a close working relationship which allows access to electrical infrastructure, namely poles, in which fiber can be attached to expedite the build-out of fiber to those living in the areas.

In addition to the community hotspots mentioned above, EMPOWER is also an active participant in the USAC Lifeline program. Lifeline is a federal program that lowers the monthly cost of phone and internet for consumers, intended to make communications services more affordable for low-income consumers. Lifeline provides subscribers a discount on monthly telephone or internet service purchased from participating providers in the marketplace. EMPOWER staff have also discussed with Mecklenburg County officials about implementing a

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program to provide services to families, with school age children, at a reduced price while students are actively attending school.

## 17. Additional Information

17. Provide any other information that the applicant desires to include. Applicants are limited to four additional attachments.

Label Additional Attachments as:

- a. Attachment 13 – Two most recent Form 477 submitted to the FCC or equivalent
- b. Attachment 14 – XXXXXXXX
- c. Attachment 15 – XXXXXXXX
- d. Attachment 16 – XXXXXXXX
- e. Attachment 17 – XXXXXXXX

## Answer:

Closing Remarks

Mecklenburg County and Mecklenburg Electric Cooperative / EMPOWER Broadband jointly submit this VATI application to deploy much needed high-speed fiber broadband to homes and business in the unserved areas across Mecklenburg County. Providing such services, to both its Members and communities, is a part of MEC's DNA. The Cooperative is known for providing outstanding service to Southside Virginia, in both electrical utility service and by being actively involved in the communities we serve. This reputation of excellent customer service allows MEC / EMPOWER an unparalleled recognition in expanding the delivery of rural broadband.

Mecklenburg Electric Cooperative and Mecklenburg County's Objectives for VATI Grant Funding

With this grant, we will provide fiber based broadband service to an area that has 414 homes including multiple home-based businesses. The service will allow Mecklenburg Electric Cooperative / EMPOWER to offer both broadband and VoIP services. Broadband will allow the residents of this area access to previously unavailable high-speed internet that will afford multiple new opportunities including, but not limited to, educational, home based businesses, telemedicine, video streaming, and overall improved communications.

Defining Mecklenburg County and Mecklenburg Electric Cooperative's Grant Need

Mecklenburg County and Mecklenburg Electric Cooperative are applying for these funds because, without VATI grant assistance, this area would fall further behind in the "digital divide" compared to areas that already have access to high speed broadband. The lack of VATI funds would also further delay the construction of an asset that has now become a requirement for everyday life in the 21<sup>st</sup>-century. Mecklenburg County is a very rural area and does not have the population density to offer a substantial payback on an investment by investor-owned internet service providers. Mecklenburg Electric Cooperative is a not for profit entity that focuses on providing service to areas that otherwise would not receive that service. In this case, the service is broadband. MEC has experience in providing service on this basis. We were formed to provide electricity to rural areas when other for-profit utilities could/would not provide it. Being owned by those that we serve, our members, require that we hold ourselves to a higher standard of service for our Members.

Why Serve this Area of Mecklenburg County?

This project area offers several key attributes for providing high speed broadband service. First, it is considered unserved by the grant guidelines and the FCC. Second, the area has accessibility to previously constructed Mecklenburg Electric Cooperative fiber backbone and would serve as an extension off existing infrastructure to be used in the most beneficial and economical fashion. Finally, the project would help establish Smart Grid communications between Mecklenburg Electric Cooperative's facilities, creating a more reliable power service to our customer/member.

Fiber Technology Offers an Unparalleled Bandwidth Platform... 10 Gig, 40 Gig, and 80 Gig

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In response to the exponential growth of consumer demand for bandwidth, MEC / EMPOWER's existing electronics provider, Calix, delivers off the shelf next generation passive optical network (PON) technologies that provide 10Gbps symmetrical broadband over existing fiber cable. Additionally, Calix also produces NG-PON2 which can deliver 40 Gbps — with 80 Gbps possible in the future — all on a single fiber.

This project will make 1Gbps speed available to each home and business. By changing electronics, sizeable gains in speed are obtainable for an incremental investment to accommodate the need of future families and businesses. This grant sets up the foundational investment in both fiber and the labor for its deployment.

It should be further noted that fiber technology simply rivals the highest speeds deliverable by any other technology and creates a tremendous value for both MEC / EMPOWER and VATI.

An Enduring Financial Investment for Mecklenburg County and Southside Virginia

The economic benefits of this project will continue to deliver advantages in support of broadband growth as MEC is a not for profit electric cooperative owned by its Members. All margins or profits will first be utilized to expand broadband into additional unserved areas. Monetary gains will remain in the Commonwealth and County as future profits generated by EMPOWER, a wholly owned subsidiary of Mecklenburg Electric Cooperative and its members, will be utilized to reduce the cost of electricity for the cooperative member.

Summary

Considering speed, expandability, delivery from a vested locally owned and locally controlled company, at competitive pricing sets this project apart from other applications. Our region, our County, our Cooperative, must strive to retain our youth and our employers, and create an environment to promote every advantageous resource. Broadband is a significant factor in leveling the playing field for this rural community.

## **Attachments:**

Map(s) of project area, including proposed infrastructure

Attachment1ProjectAreaMap8142020110523.pdf

Documentation of Federal Funding (CAF/ACAM/USDA, etc...) in and/or near proposed project area.

Attachment2DocumentationonFederalFundingArea814202052102.pdf

Documentation that proposed project area is unserved based on VATI criteria

Attachment3DocumentationUnservedAreaVATICriteria814202052139.pdf

Passings Form (Please use template provided)

Attachment4PassingsForm814202052036.pdf

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Timeline/Project Management Plan

Attachment6TimelineProjectManagementPlanMecklenburgCountyVATI20218172020100729.pdf

MOU/MOA between applicant/co-applicant (can be in draft form)

Attachment7MemorandumofUnderstandingMecklenburgCounty20218172020103448.pdf

Funding Sources Table

Attachment8FundingSourcesTable814202021522.pdf

Documentation for match funding

Attachment9DocumentationofMatchFunding8162020113650.pdf

Letters of Support

Attachment10LettersandEmailsofSupport8172020104055.pdf

Derivation of Cost (Project Budget)

Attachment11DerivationofCosts814202021913.pdf

Documentation supporting project costs (e.g. vendor quotes)

Attachment12DocumentationofSupportingCosts8162020114507.pdf

Two most recent Form 477 submitted to FCC

Attachment13TwoMostRecentFCCForm477Filings8162020112437.pdf

Optional

Attachment14VATIMarketingPlanAugust20208162020112809.pdf

Optional

Attachment15SpeedTestResults817202010617.pdf

**Notes:**  
Mecklenburg County and Mecklenburg Electric Cooperative are applying for these funds because, without VATI grant assistance, this

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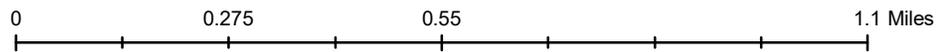
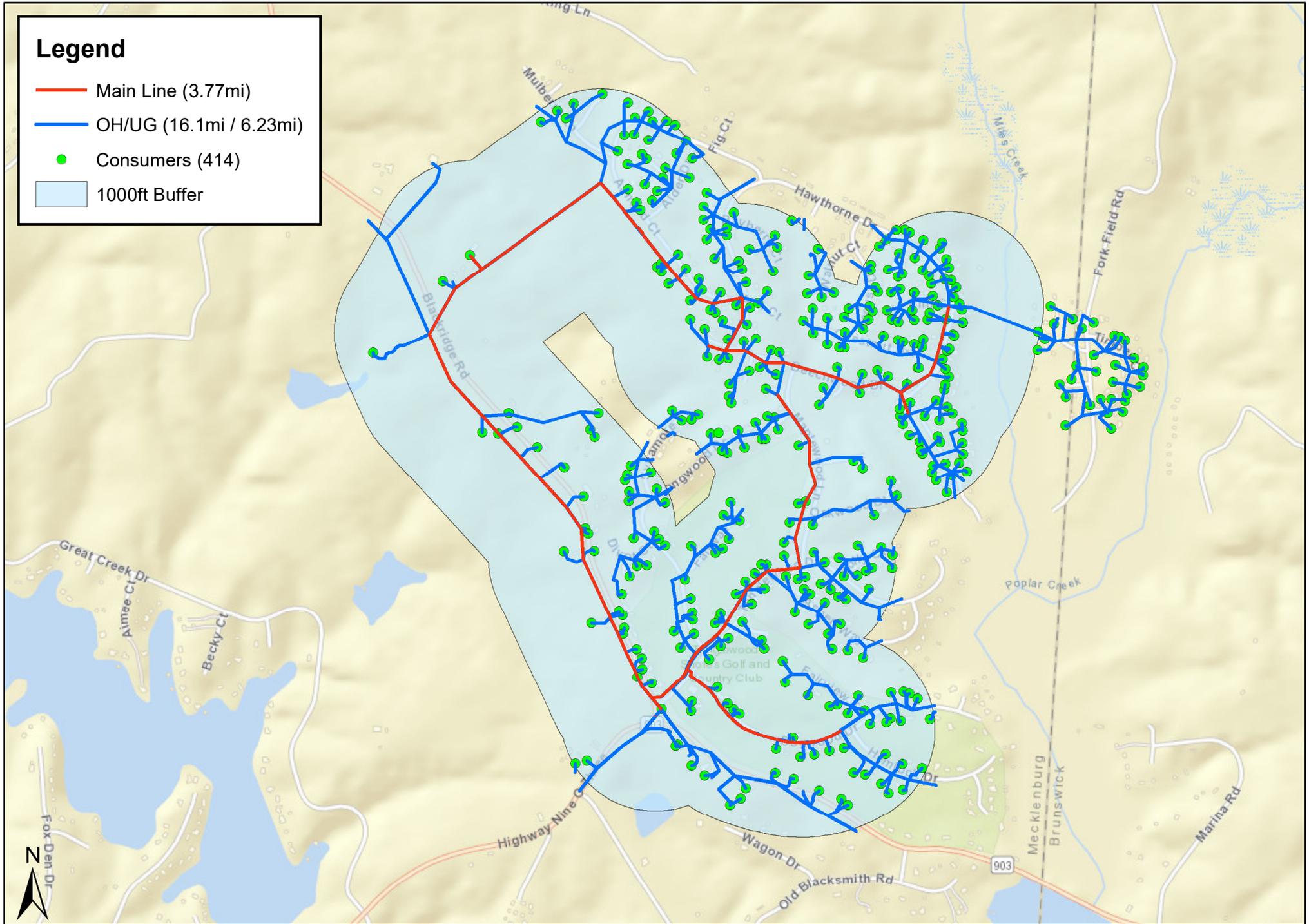
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area would fall further behind in the “digital divide” compared to areas that already have access to high speed broadband. The lack of VATI funds would also further delay the construction of an asset that has now become a requirement for everyday life in the 21st-century. Mecklenburg County is a very rural area and does not have the population density to offer a substantial payback on an investment by investor-owned internet service providers. Mecklenburg Electric Cooperative is a not for profit entity that focuses on providing service to areas that otherwise would not receive that service. In this case, the service is broadband. MEC has experience in providing service on this basis. MEC was formed to provide electricity to rural areas when other for-profit utilities could/would not provide it. Being owned by those that we serve, our members, require that we hold ourselves to a higher standard of service for our Members. Considering speed, expandability, delivery from a vested locally owned and locally controlled company, at competitive pricing sets this project apart from other applications. Our region, our County, our Cooperative, must strive to retain our youth and our employers, and create an environment to promote every advantageous resource. Broadband is a significant factor in leveling the playing field for this rural community. We thank VATI for your strong consideration in approving this grant application.

# Tanglewood

## Legend

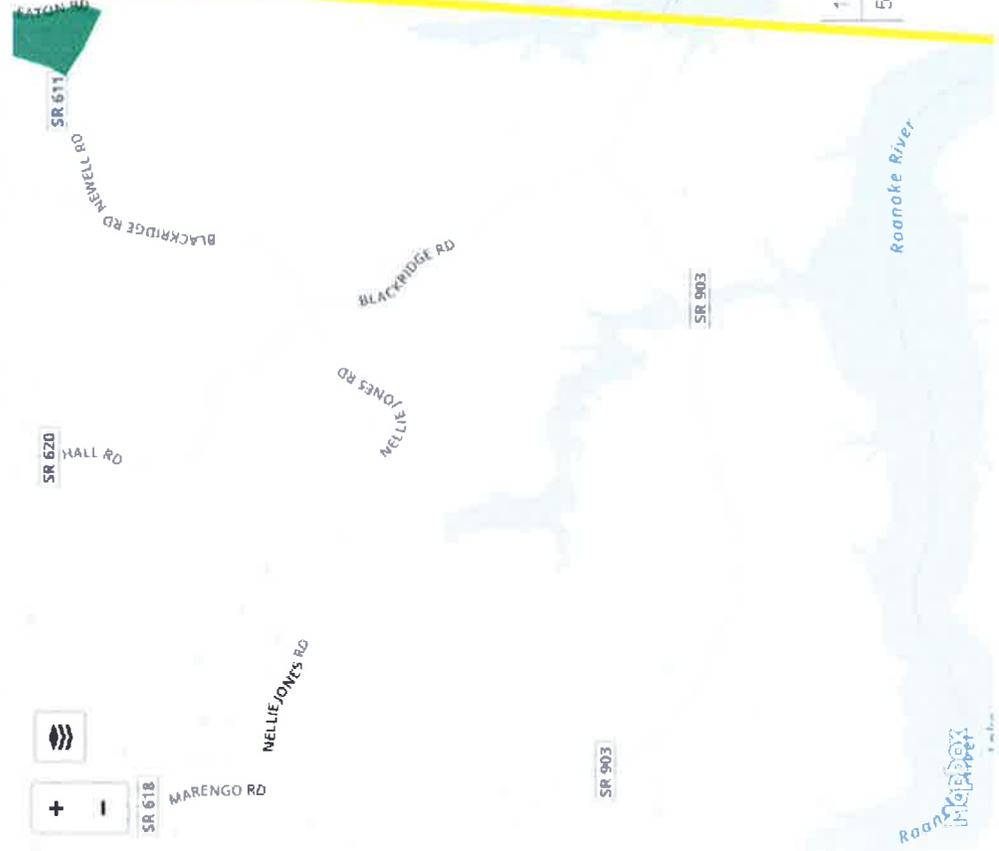
- Main Line (3.77mi)
- OH/UG (16.1mi / 6.23mi)
- Consumers (414)
- 1000ft Buffer



# Connect America Phase II - Final Eligible Areas Map

<https://www.fcc.gov/reports-research/maps/connect-america-phase-ii-final-eligible-areas-map/>

mecklenburg county, virginia



## County Summary

Mecklenburg County, VA		Total Price Cap (PC) County Locations: 16,574	
PC Carrier	State	Eligible Locations	Support Amount
CenturyLink	NC	761	\$209,038
CenturyLink	VA	2,663	\$805,638
Verizon	VA	3,424	\$1,014,676
<b>Total</b>			

## Virginia State Summary

PC Carrier	Eligible Locations	Support Amount
CenturyLink	49,993	\$15,731,767
Fairpoint	2,440	\$857,022
Communications	85,518	\$29,144,142
Verizon	137,951	\$45,732,931
<b>Total</b>		

## Map Legend

- Eligible
- Ineligible - Exceeds Threshold
- Ineligible - Below Benchmark
- Ineligible - Other
- Elected Frozen

# Auction 904 Initial Eligible Areas

Published on 3/17/20. An updated map was published on 6/25/20; see below for a link.



### Attachment 3 - Part 1 of 2

Documentation that proposed area is unserved based on VATI criteria.

Source for graph below. [https://www.intermode.on.net/residential/broadband/ads/easy\\_broadband/performance/](https://www.intermode.on.net/residential/broadband/ads/easy_broadband/performance/)

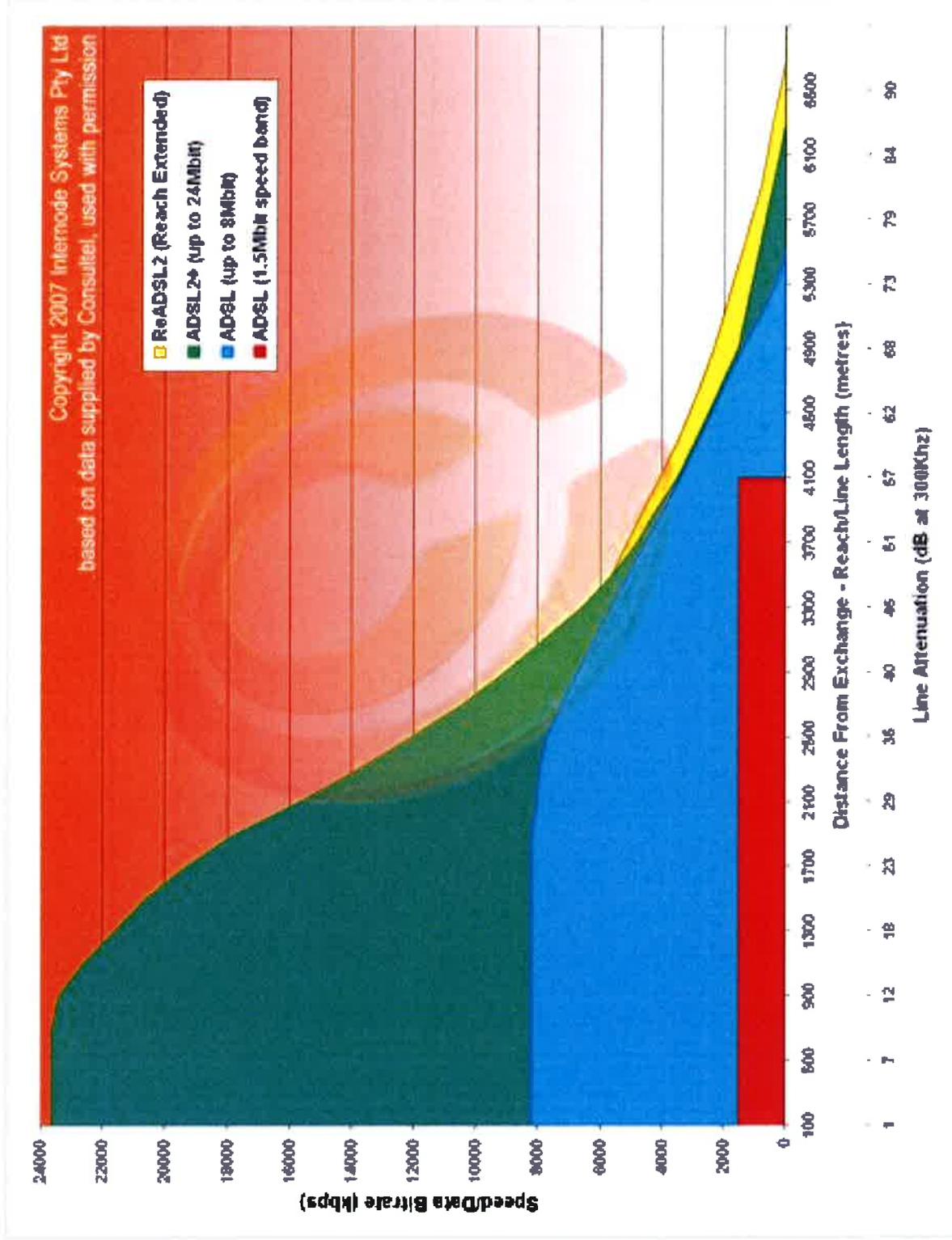


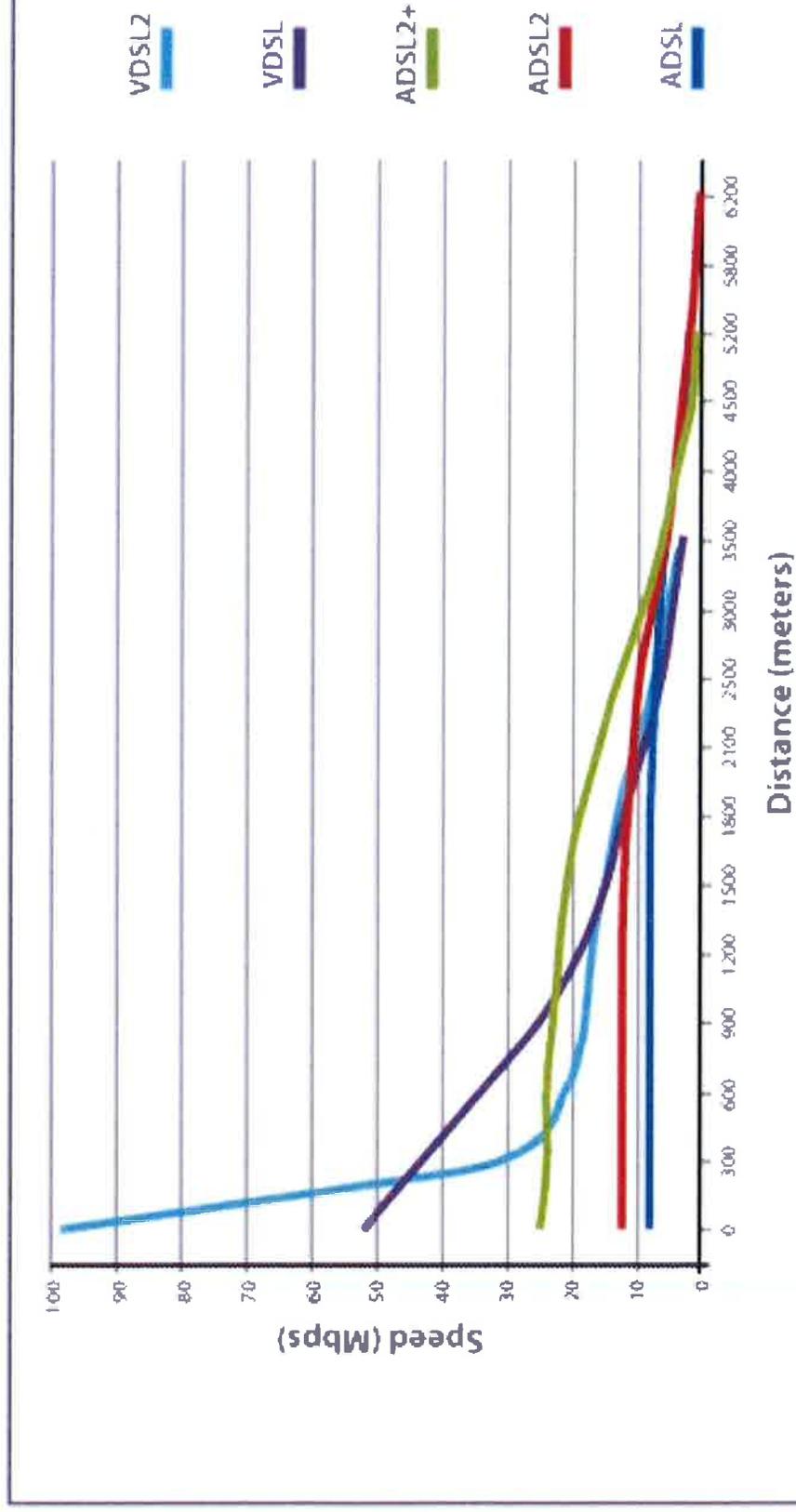
Figure 1: Graph showing the maximum speeds in relation to distance on ADSL1, ADSL2, and ADSL2+

### Attachment 3 - Part 2 of 2

Documentation that proposed area is unserved based on VATI criteria.

Source for graph below. <https://nbnmyths.wordpress.com/why-not-fttn/>

## FTTC Speed Graph



Source: Ofcom

# Deployment

Fixed Broadband (25 Mbps/3 Mbps) as of June, 2016

<https://www.fcc.gov/reports-research/maps/fixed-broadband-deployment-data/#lat=36.587414&lon=-78.052068&zoom=14>

Address ▾ Enter Address

Q ↵ ↻

**Fixed** Providers Demographics

## Census Block

**FIPS Code:** 511179301021025  
**Designation:** Rural

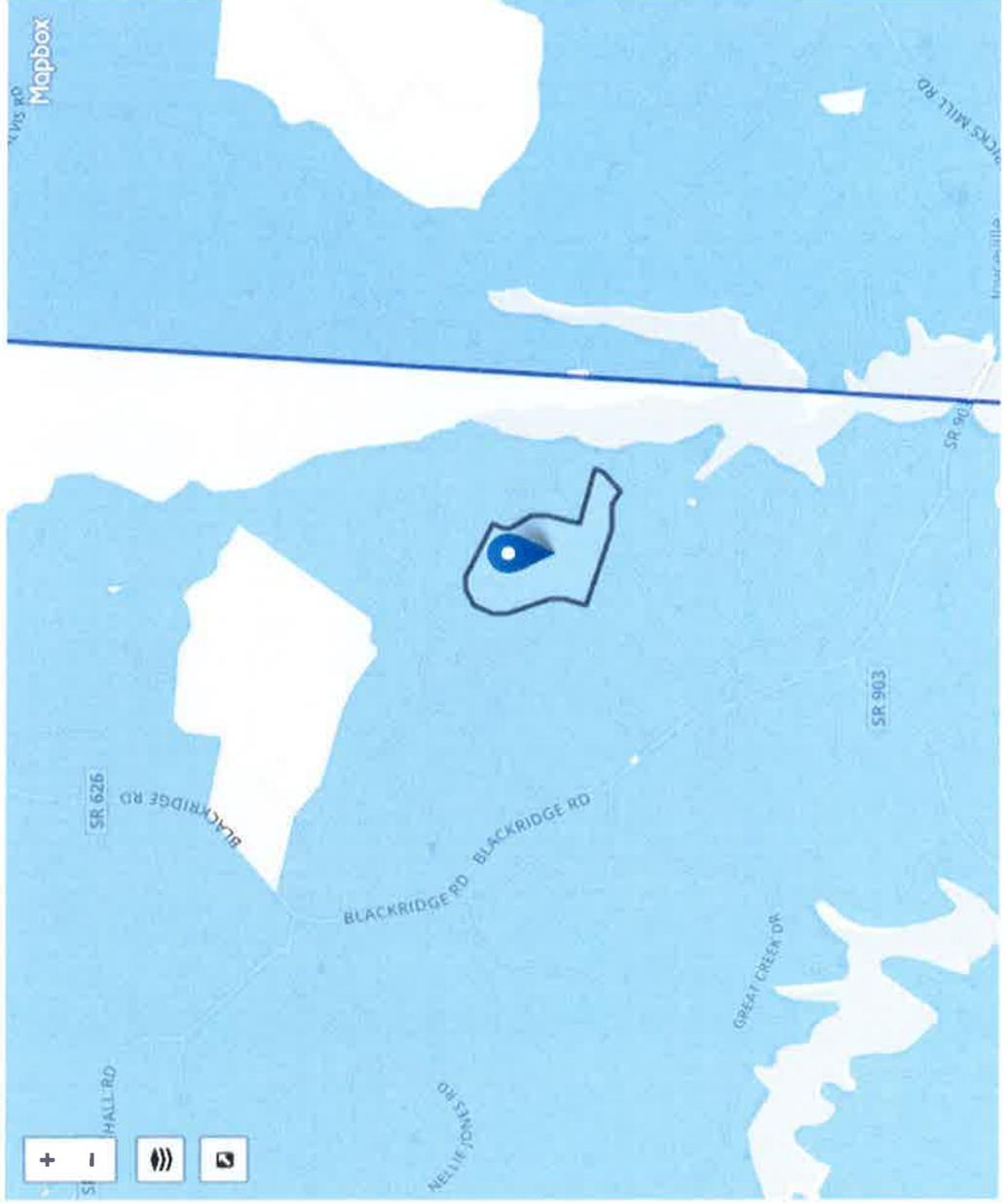
## Providers

Name ▲	Tech ⇅	Down ⇅	Up ⇅
Buggs Island Telephone Cooperative	ADSL	10	1
HughesNet	Satellite	15	2
Skycasters	Satellite	2	1.3
ViaSat Inc	Satellite	12	3

## Map Layers

Areas without population are shown without color.

- Fixed broadband 25/3 (Mbps)
- No fixed broadband 25/3 (Mbps)
- Tribal land
- Urban area



## 2021 Virginia Telecommunication Initiative (VATI) Attachment 4-Passing Form

Type of Passings	Total Number in Project Area	Number with Speeds at 10/1 or below in Project Area
<b>Residential</b>	402	401
<b>Businesses (non-home based)</b>	0	0
<b>Businesses (home-based)</b>	12	12
<b>Community Anchors</b>	0	0
<b>Non-residential</b>	0	0
<b>Total Number of Passings</b>	414	413

**Note:** The Total Number of Passings **MUST** be equal to the Residential, Business (non-home based), Non-residential and Community Anchors sum.

### Definitions

**Passing** – any structure that can receive service.

**Business** – An organization or entity that provides goods or services in order to generate profit. Businesses based in residential homes can count if they are a registered business (BPOL, LLC, etc.).

**Community Anchor** - schools, libraries, medical and health care providers, public safety entities, community colleges and other institutions of higher education, and other community support organizations and agencies that provide outreach, access, equipment, and support services to facilitate greater use of broadband service by vulnerable populations, including low-income, unemployed, and the aged.

**Non-Residential Passing** – places of worship, federal, state, or local facilities or other potential customers that are neither a residence, business or a community anchor as defined above.

**Attachment 6 - Timeline Project Management Plan**

MEC-EMPOWER 2020 VATI Timeline						
Task Name	Assigned MEC Manager	Responsible Individual	Responsible Entity	Start Date	Finish Date	Duration
Finalize VATI Bid award	M. Taylor	M. Taylor	EMPOWER	12/15/2020	12/18/2020	1 Week
Press Release of Award Notification to Local Newspaper	D. Lipscomb	D. Winn	MEC	12/15/2020	12/20/2020	1 Week
Social Media Release	D. Lipscomb	P. Whitley	MEC	12/15/2020	12/20/2020	1 Week
<b>Finalize Engineering Design</b>						
Edit Basemap with final route fiber count, splice can location, splitter diagram	D. Long	D. Long	MEC	12/15/2020	12/22/2020	1 Week
Finalize fiber count, splice can location, and splitter diagram	D. Long	D. Long	MEC	12/15/2020	12/22/2020	1 Week
Create permit application drawings, VDOT/Railroad	B. Woods	J. Blair	MEC	2/3/2021	2/28/2021	1 Month
Engineering design assigned to Field Engineers for field review	J. Blair	B. Buckner	Booth & Associates	1/13/2021	2/28/2021	1.5 Months
Finalize network electronic equipment list and release RFP	D. Long	B. Soles	MEC/EMPOWER			
Award electronics vendor bid	D. Long	B. Soles	MEC/EMPOWER			
Generate and release Construction and Materials RFP package	B. Seamans	R. Lankford	MEC	3/16/2021	3/20/2021	5 Days
Social Media Project Progress Update	D. Lipscomb	P. Whitley	MEC	3/16/2021	3/20/2021	5 Days
Community Meetings (Virtual or In-Person): Greensville, Halifax, Mecklenburg Update & Digital Literacy	D. Lipscomb	D. Francis	MEC/EMPOWER	3/15/2021	3/22/2021	1 Week
Award construction and materials bid	B. Seamans	R. Lankford	MEC	4/1/2021	4/1/2021	1 Day
Project Status Review	M. Taylor	M. Taylor	EMPOWER	12/15/2020	4/1/2021	4.5 Months
<b>Fiber Design and Make Ready Design - Integration</b>						
Complete Fiber Engineering Design Edits	B. Woods	J. Blair	MEC	1/13/2021	2/28/2021	1.5 Months
Make Ready Engineering	B. Seamans	J. Blair	MEC	1/13/2021	2/28/2021	1.5 Months
Details of poles collected using Work Studio	J. Blair	B. Buckner	Booth & Associates	1/13/2021	2/28/2021	1.5 Months
Details of all underground fiber route using Work Studio	J. Blair	B. Buckner	Booth & Associates	1/13/2021	2/28/2021	1.5 Months
Make ready engineering evaluated for fiber placement	B. Seamans	B. Woods	MEC	1/13/2021	2/28/2021	1.5 Months
Make ready engineering finalized by MEC Field Engineering	B. Woods	J. Blair	MEC	3/22/2021	3/16/2021	5 Days
Final Construction Dept. and Engineering Field Review	B. Seamans	R. Lankford	MEC	3/9/2021	3/15/2021	5 Days
Project Status Review	M. Taylor	M. Taylor	EMPOWER	1/13/2021	3/13/2021	3 Months
<b>Detailed Design Complete/Make Ready Construction</b>						
Make Ready Construction Work Orders generated	J. Blair	B. Buckner	Booth & Associates	3/2/2021	3/16/2021	5 Days
Permit drawings and Applications filed	B. Woods	J. Blair	MEC	3/2/2021	3/16/2021	5 Days
Splice sheets generated	B. Woods	J. Belknap	MEC	5/11/2021	5/29/2021	1 Month
Bill of materials finalized	B. Seamans	J. Blair	MEC	3/16/2021	3/20/2021	5 Days
Direct Mailer #1 to Premises on pending make ready construction	D. Lipscomb	P. Whitley	MEC	2/15/2021	2/22/2021	1 Week
Make Ready Construction	B. Seamans	B. Woods	MEC	3/22/2021	5/20/2021	3 Months
Press Release of Award Notification to Local Newspaper	D. Lipscomb	D. Winn	MEC	4/15/2021	4/20/2021	1 Week
Social Media Release	D. Lipscomb	P. Whitley	MEC	4/15/2021	4/20/2021	1 Week
Community Meetings (Virtual or In-Person): Greensville, Halifax, Mecklenburg Update & Digital Literacy	D. Lipscomb	D. Francis	MEC/EMPOWER	5/15/2021	5/22/2021	1 Week
Project Status Review	M. Taylor	M. Taylor	EMPOWER	3/2/2021	5/22/2021	3 Months
<b>Construction of Outside Plant (OSP)</b>						
Overall Construction of Outside Plant (OSP)	R. Lankford	P. Sopko	DHE	6/1/2021	12/15/2021	6.5 Months
Stringing Block deployment to pull in Overhead ADSS Cable	R. Lankford	P. Sopko	DHE	6/1/2021	10/30/2021	5 Months
ADSS overhead cable deployment	R. Lankford	P. Sopko	DHE	6/15/2021	11/20/2021	5 Months
Underground cable deployment	R. Lankford	R. Lankford	MEC	6/15/2021	11/20/2021	5 Months
Community Meetings: Greensville, Halifax, Mecklenburg Update & Digital Literacy	D. Lipscomb	D. Francis	MEC/EMPOWER	7/15/2021	7/22/2021	1 Week
Installation of downline Splice Cans and Splitters	J. Belknap	A. Gibson	N & S	8/3/2021	12/15/2021	4.5 Months
Direct Mailer #2 to Premises for early sign-up with \$50 or \$100 installation incentive	D. Lipscomb	P. Whitley	MEC	8/15/2021	8/22/2021	1 Week
Site racks and equipment installed	B. Woods	J. Belknap	MEC	9/14/2021	9/25/2021	2 Weeks
Test Network Electronics	D. Long	B. Soles	MEC/EMPOWER	9/15/2021	9/26/2021	2 Weeks
Commission data network for ONT Connection	D. Long	B. Soles	MEC/EMPOWER	9/26/2021	10/2/2021	1 Week
Installation of Access Class FTTH (Back Haul from Main Line to Drop)	B. Seamans	R. Lankford	MEC	8/3/2021	12/15/2021	4.5 Months
Project Status Review	M. Taylor	M. Taylor	EMPOWER	6/1/2021	12/15/2021	6.5 Months
<b>Drop, NID, ONT Installation</b>						
Direct Mailer #3 Sign-up reminder	D. Lipscomb	P. Whitley	EMPOWER	9/7/2021	9/14/2021	1 Week
Drop Installation	B. Seamans	R. Lankford	MEC	8/3/2021	12/15/2021	4.5 Months
Home installation of ONT and NID	J. Belknap	L. Fishman	Next Generation Electronics	9/1/2021	12/15/2021	3.5 Months
Door to Door visits with door mailer for those remaining eligible	D. Lipscomb	P. Lawson	EMPOWER	9/1/2021	9/15/2021	1 Week
Press Release of Award Notification to Local Newspaper	D. Lipscomb	D. Winn	MEC	8/15/2021	8/20/2021	1 Week
Social Media Release	D. Lipscomb	P. Whitley	MEC	8/15/2021	8/20/2021	1 Week
Community Meetings (Virtual or In-Person): Greensville, Halifax, Mecklenburg Update & Digital Literacy	D. Lipscomb	D. Francis	EMPOWER	9/15/2021	9/22/2021	1 Week
Yard Sign Deployment at installed users	D. Lipscomb	D. Francis	EMPOWER	9/1/2021	12/15/2021	3.5 Months
Project Status Review	M. Taylor	M. Taylor	EMPOWER	8/3/2021	12/15/2021	4.5 Months

**Memorandum of Understanding  
Regarding VATI Funding**

THIS MEMORANDUM OF UNDERSTANDING ("Agreement") is entered as of this 14th day of August, 2020, by and between MECKLENBURG COUNTY, VIRGINIA, a political subdivision of the Commonwealth of Virginia (the "COUNTY"), and EMPOWER BROADBAND, INC., ("EMPOWER"), a wholly owned subsidiary of the MECKLENBURG ELECTRIC COOPERATIVE, a Virginia consumer utility services cooperative (each a "Party" and collectively the "Parties.")

MECKLENBURG COUNTY and EMPOWER are jointly applying for Virginia Department of Housing and Community Development ("DHCD") funding under the Virginia Telecommunication Initiative (VATI) program. Pursuant to the program, guidelines and statutory authority, the primary objective of the VATI is to provide financial assistance to supplement construction costs by private sector broadband providers, in partnership with local units of government, to extend service to areas that presently are unserved by any broadband provider. The grant agreement between DHCD and the COUNTY (the "DHCD Agreement") will impose certain responsibilities on the Parties in accepting the VATI grant. As anticipated in the joint application for funding submitted by COUNTY and EMPOWER, the Parties wish to outline the roles of each party once the grant has been awarded. Accordingly, the Parties now hereby agree as follows:

EMPOWER shall perform all work described in the DHCD Agreement and applicable Special Conditions, the submitted application, project management schedule and budget, Specifically, EMPOWER shall complete all Grant Activities described in the DHCD Contract Documents as long as all construction materials, which could have a 6-week lead time, are received and implemented in the network. At which time, DHCD has stated it will extend the completion date with no penalties or repercussions, if applicable. EMPOWER shall indemnify, defend and hold the COUNTY harmless for any failure(s):

- (a) to complete any Grant Activities described in the DHCD Contract Documents on or before the date of Grant Expiration and/or
- (b) to achieve any project Outcomes by the estimated date of Construction Conclusion per Contract.

EMPOWER will provide information of subscribers and speed package selected, as well as speed validation data to ensure that the proposed Outcomes have been met and that broadband speeds meet VATI criteria. EMPOWER will submit invoices for payment upon completion of the work. No VATI funds shall be distributed unless and until:

- (a) EMPOWER has submitted all requested documents and

(b) the COUNTY has verified that pre-construction and/or construction work has been completed or equipment has been ordered and received.

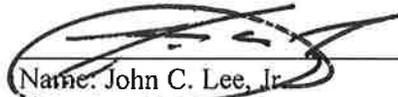
In their application, the Parties estimated that 414 serviceable units will have access to the required broadband speeds. COUNTY and EMPOWER will exercise due diligence and best efforts on community outreach and marketing the availability of service, which is the intent of the program, The Parties understand, however, that the actual number of customers who choose to subscribe is beyond the Parties control. The Parties also understand that the intent of the Department of Housing and Community Development is that the Parties exercise due diligence and best efforts and that no funds will be returned to the Commonwealth nor retained by COUNTY so long as the Parties exercise due diligence and best efforts to reach the program goals.

IN WITNESS WHEREOF:

**MECKLENBURG COUNTY, VIRGINIA:**

  
\_\_\_\_\_  
Name: Wayne Carter  
Title: County Administrator

**EMPOWER BROADBAND, INC.**

  
\_\_\_\_\_  
Name: John C. Lee, Jr.  
Title: President and CEO

**Attachment #8 – Funding Sources Table**

VATI FUNDING SOURCES TABLE

Please fill in the chart below with a description of the project funding source (local, federal, state, private, other), the amount from that source, the percentage of total project funding that source represents, and a description of the current status of the funds (pending, secured, etc.).

Source	Amount	%	Status
REQUESTED VATI	\$449,381	30%	Pending
MEC (private)	\$1,048,556	70%	APPROVED
	\$		
	\$		
	\$		
	\$		
	\$		
<b>TOTAL</b>	<b>\$ 1,497,937</b>	<b>100 %</b>	

**HEADQUARTERS**

P. O. Box 2451  
Chase City, VA 23924  
Phone: 434-372-6100/Fax: 434-372-6101

**CHASE CITY DISTRICT**

P. O. Box 2451  
Chase City, VA 23924  
Phone: 434-372-6200/Fax: 434-372-6201



Your Touchstone Energy® Partner 

[www.meckelec.org](http://www.meckelec.org)

**SAFETY FIRST!**

**EMPORIA DISTRICT**

P. O. Box 427  
Emporia, VA 23847  
Phone: 434-634-6168/Fax: 434-348-7100

**GRETNA DISTRICT**

P. O. Box 617  
Gretna, VA 24557  
Phone: 434-656-1288/Fax: 434-656-9200

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August 14, 2020

**Tamarah Holmes, PhD.**  
**Virginia Department of Housing and Community Development**  
**ATTN: Virginia Telecommunications Initiative**  
**600 East Main Street, Suite 300**  
**Richmond, VA 23219**

Dear Dr. Holmes,

This letter is to document Mecklenburg Electric Cooperative’s (MEC) in-kind match for three Virginia Telecommunications Initiative Last Mile Grant Applications submitted by MEC and our affiliate EMPOWER Broadband, INC.

MEC and EMPOWER Broadband, INC. will provide funding to expand our fiber optic network; these investments are being presented for the in-kind match for each application, respectively. The project area, MEC’s match, and the VATI request are listed below.

<u>Project Area</u>	<u>MEC/EMPOWER Match</u>	<u>VATI Request</u>
Halifax County	\$947,304	\$350,373
Greensville County	\$182,376	\$116,600
Mecklenburg County	\$1,048,556	\$449,381

The Cooperative has approved these expenditures as in-kind matching funds upon a successful grant award.

Respectfully,

John C. Lee, Jr.  
President and CEO  
Mecklenburg Electric Cooperative



Copy: Glen  
12/5/06



**National Rural Utilities  
Cooperative Finance Corporation**

2201 Cooperative Way  
Herndon, Virginia 20171-3025  
703-709-6700 | www.nrucfc.coop

A Touchstone Energy\* Cooperative 

November 29, 2006

Mr. M. John Bowman  
President and CEO  
Mecklenburg Electric Cooperative  
11633 Hwy 92  
Chase City, VA 23924



Re: Line of Credit # VA031-P-5102

Dear Mr. Bowman:

Your cooperative has executed and returned all required CFC documents and supporting papers in connection with the Line of Credit designated above. These documents have been reviewed and found legally acceptable and satisfactory to CFC and thus constitute a binding agreement between CFC and your cooperative.

Enclosed, for your records, is a copy of the fully executed Line of Credit Agreement. Line of Credit funds may now be requisitioned in accordance with the terms of the Line of Credit Agreement.

We at CFC appreciate the opportunity to serve your system and look forward to our continued business relationship.

Sincerely,

A handwritten signature in dark ink that reads 'David Olah'.

David Olah  
Associate Vice President

Enclosure

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**National Rural Utilities Cooperative Finance Corporation  
Perpetual Line of Credit Agreement  
("Agreement")**

**Name of Borrower: Mecklenburg Electric Cooperative**

**Address: PO Box 2451, 11633 Hwy 92, Chase City, Virginia 23924**

National Rural Utilities Cooperative Finance Corporation ("CFC"), a District of Columbia corporation, has approved Borrower for a revolving line of credit loan in an amount not to exceed Nine Million Two Hundred Thousand Dollars (\$9,200,000.00) (hereinafter referred to as the "CFC Commitment"). Borrower hereby agrees that the terms and conditions herein, plus any additional terms and conditions agreed to in writing by the parties, shall constitute a valid and binding agreement between Borrower and CFC. In consideration of their mutual promises hereunder and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, CFC and Borrower agree to the following terms and conditions:

- 1. Revolving Credit and Term.** CFC agrees to advance funds to the Borrower pursuant to the terms and conditions hereof (each such advance of funds is referred to herein as an "Advance"), provided, however, that the amount at any time outstanding under this line of credit shall not exceed the CFC Commitment. The Borrower may borrow, repay and reborrow funds at any time or from time to time for a period up to twelve (12) months from the effective date hereof. This Agreement shall thereafter automatically renew for subsequent periods of twelve (12) months each. Either party may terminate this Agreement at the end of any period by providing written notice to the other party at least ninety (90) days prior to the expiration of such period.
- 2. Requisitions.** Requests for Advances shall be in such written form as CFC may reasonably require from time to time.
- 3. Interest Rate and Payment.** The Borrower unconditionally promises and agrees to pay, as and when due, interest on all amounts advanced hereunder from the date of each Advance and to repay all amounts advanced hereunder with interest on the date this Agreement terminates as provided herein. Interest shall be due and payable in accordance with CFC's regular billing cycles as may be in effect from time to time. CFC shall send a payment notice to the Borrower at least five days prior to the due date of any interest payment. All amounts shall be payable at CFC's main office at Woodland Park, 2201 Cooperative Way, Herndon, Virginia 20171-3025 or at such other location as designated by CFC from time to time. The interest rate on all Advances will be equal to the total rate per annum as may be fixed by CFC from time to time, which shall not exceed the Prevailing Bank Prime Rate (as defined herein), plus one percent per annum. Interest will be computed on the basis of a 365 day year for the actual number of days that any

Advance is outstanding. The effective date of an interest rate adjustment will be determined from time to time by CFC, provided that no such adjustment may be effective on a date other than the first or sixteenth day of any month, and any such adjustment shall remain in effect until any subsequent change in the interest rate occurs.

The "Prevailing Bank Prime Rate" is that bank prime rate published in the "Money Rates" column of the eastern edition of *The Wall Street Journal* on the publication day immediately preceding the day on which an adjustment in the interest rate hereof shall become effective. If *The Wall Street Journal* shall cease to be published, then the Prevailing Bank Prime Rate shall be determined by CFC by reference to another publication reporting bank prime rates in a similar manner.

4. **Mandatory Prepayment.** If (a) there is a change in the Borrower's corporate structure (including without limitation by merger, consolidation, conversion or acquisition), and (b) after giving effect to such change, Borrower (i) would not be eligible to receive a loan or commitment for a loan from the Rural Utilities Service or any successor agency, or (ii) would no longer engage in the furnishing of utility services to its members and patrons for their use as ultimate consumers, then upon the effective date of such change, the Borrower shall prepay the outstanding principal balance of all Obligations, together with any accrued but unpaid interest thereon, any unpaid costs or expenses provided for herein, and a prepayment premium prescribed by CFC pursuant to its policies of general application in effect from time to time.

"Obligations" shall mean any and all liabilities, obligations or indebtedness owing by the Borrower to CFC, of any kind or description, irrespective of whether for the payment of money, whether direct or indirect, absolute or contingent, due or to become due, now existing or hereafter arising.

5. **CFC Accounts.** CFC shall maintain in accordance with its usual practices an account or accounts evidencing the indebtedness of the Borrower resulting from each Advance and the amounts of principal and interest payable and paid hereunder. In any legal action or proceeding in respect of this Agreement, the entries made in such account or accounts (whether stored on computer memory, microfilm, payment notices or otherwise) shall be presumptive evidence (absent manifest error) of the existence and amounts of the Borrower's transactions therein recorded.
6. **Corporate and Regulatory Approvals.** Borrower represents and warrants that it has obtained any and all necessary corporate and regulatory approvals for Borrower to execute, deliver and perform its obligations under this Agreement.
7. **Reports.** During the term of this Agreement, Borrower agrees (a) to provide CFC, within 120 days of the end of Borrower's fiscal year, its annual financial statements, prepared in accordance with generally accepted accounting principles ("GAAP") and audited by an independent certified public accountant, or otherwise in form and substance satisfactory to CFC, and (b) to provide CFC with any other reports or information which CFC may from time to time reasonably request.
8. **Fees.** If any amount outstanding and due hereunder shall not be paid when due, Borrower agrees to pay on demand CFC's reasonable costs of collection or enforcement

of this Agreement, or preparation therefor, including reasonable fees of counsel. If payment of any principal and/or interest due under the terms of this Agreement is not received at CFC's office in Herndon, Virginia, or such other location designated by CFC within 5 business days after the due date thereof, then Borrower shall pay to CFC, on demand, and in addition to all other amounts due under the terms of this Agreement, any late-payment and additional interest charges as may then be in effect pursuant to CFC's then current policies without setoff or counterclaim. For purposes of this Agreement, a "business day" means a day that both CFC and the financial institution it employs for funds remittance are open for business.

9. **Limitation on Advances.** While an Advance is outstanding, CFC reserves the right to limit further Advances if the sum of (a) all Advances outstanding, (b) the amount of any further Advance requested, and (c) the total amount of Borrower's other unsecured outstanding debt, would exceed the CFC Commitment. CFC may also, in its sole discretion decline to make any Advance during any period when the Borrower is in default hereunder.
10. **Paydown Requirement.** For each 12-month period while this Agreement is in effect, Borrower shall, for a period of at least five consecutive business days, pay down the entire outstanding principal balance on this line of credit ("Paydown"). Borrower shall make the initial Paydown within 360 days of the first Advance hereunder, and shall make each subsequent Paydown within 360 days of the date of the first Advance following each Paydown.
11. **Credit Support.** With CFC's prior written approval, this Agreement may be used as credit support for other financings.
12. **Notices, Acceleration of Debt and Waivers.** While an Advance is outstanding, Borrower agrees to notify CFC in writing of (a) any delinquency or default on any of its financial obligations, (b) any material adverse change in its financial or business condition, and (c) if any representation or warranty made in this Agreement is no longer true in any material respect. If any delinquency, default, or any other event as a result of which any holder of indebtedness may declare the same due and payable shall occur and continue uncorrected for more than any applicable grace period, or any representation or warranty herein shall no longer be true, or Borrower shall fail to perform or to comply with any term of this Agreement, or if the financial condition of Borrower shall have changed to the extent that such change, in the reasonable judgment of CFC, materially increases CFC's risk of repayment hereunder, then CFC may declare at any time all outstanding principal, interest and other amounts due hereunder immediately due and payable in full with accrued interest, without presentment or demand, and may withhold Advances. The Borrower waives the defense of usury and all rights to setoff, counterclaim, deduction or recoupment.
13. **Survival of Representations and Warranties and Payment Obligations.** Borrower agrees that its obligation to repay principal, interest and all other amounts due hereunder, and the representations and warranties made herein, shall survive termination of this Agreement. Borrower further agrees that such repayment obligations shall be automatically reinstated if and to the extent that for any reason any payment by or on

behalf of the Borrower is rescinded, set aside or must be otherwise restored, whether as a result of any proceeding in bankruptcy or reorganization or otherwise.

**14. Representations and Warranties.** Borrower represents and warrants that as of the date of its application for this line of credit, and on the date of each Advance hereunder:

- a) the Borrower is not in default of any of its financial obligations;
- b) there has been no material adverse change in the Borrower's business or financial condition from that set forth in its most recent audited financial statements;
- c) no litigation is pending or, to the best of Borrower's knowledge, threatened against the Borrower which, if adversely determined, would have a material adverse effect on the Borrower's ability to perform under this Agreement;
- d) the information contained in Borrower's audited financial statements, its other financial reports and information otherwise submitted in connection with this Agreement is complete and accurate, and said financial statements and financial reports fairly represent the financial condition of the Borrower as of the dates reflected thereon;
- e) the execution, delivery and performance of this Agreement has been duly authorized by the Borrower, which authorization has not been rescinded or modified;
- f) all Advances hereunder will be used only for proper corporate purposes;

**15. Conditions of Lending.** As a condition to CFC making Advances hereunder, each of the following conditions shall be satisfied at the time of each Advance:

- a) CFC shall have received the Borrower's most recent annual financial statements, prepared in accordance with GAAP and audited by an independent certified public accountant, or otherwise in form and substance satisfactory to CFC;
- b) all representations and warranties set forth herein shall be true and correct; and
- c) the Borrower shall have obtained any and all necessary corporate, regulatory and governmental approvals for the Borrower to execute, deliver and perform its obligations under this Agreement.

**16. GOVERNING LAW; SUBMISSION TO JURISDICTION; WAIVER OF JURY TRIAL.**

- (a) **THE PERFORMANCE AND CONSTRUCTION OF THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE COMMONWEALTH OF VIRGINIA.**
- (b) **BORROWER HEREBY SUBMITS TO THE NONEXCLUSIVE JURISDICTION OF THE UNITED STATES COURTS LOCATED IN VIRGINIA AND OF ANY STATE COURT SO LOCATED FOR PURPOSES OF ALL LEGAL PROCEEDINGS ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY. BORROWER IRREVOCABLY**

**WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY OBJECTION THAT IT MAY NOW OR HEREAFTER HAVE TO THE ESTABLISHING OF THE VENUE OF ANY SUCH PROCEEDING BROUGHT IN SUCH A COURT AND ANY CLAIM THAT ANY SUCH PROCEEDING HAS BEEN BROUGHT IN AN INCONVENIENT FORUM.**

**(c) EACH OF THE BORROWER AND CFC HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.**

- 17. Severability.** If any term, provision or condition, or any part thereof, of this Agreement shall for any reason be found or held invalid or unenforceable by any court or governmental agency of competent jurisdiction, such invalidity or unenforceability shall not affect the remainder of such term, provision or condition nor any other term, provision or condition, and this Agreement shall survive and be construed as if such invalid or unenforceable term, provision or condition had not been contained herein.
- 18. Setoff.** Upon the occurrence and during the continuance of any default, CFC is hereby authorized at any time and from time to time without prior notice to the Borrower to exercise rights of setoff or recoupment and apply any and all amounts held, or hereafter held, by CFC or owed to the Borrower or for the credit or account of the Borrower against any and all of the obligations of the Borrower now or hereafter existing hereunder. CFC agrees to notify the Borrower promptly after any such setoff or recoupment and the application thereof, provided that the failure to give such notice shall not affect the validity of such setoff, recoupment or application. The rights of CFC under this section are in addition to any other rights and remedies (including other rights of setoff or recoupment) which CFC may have.
- 19. Additional Terms and Conditions.** Additional terms and conditions as set forth herein or attached hereto are an integral part of this Agreement.
- 20. Termination and Cancellation of Existing Agreement.** Borrower agrees that its existing line(s) of credit No(s). VA031-R-5101 with CFC, and any agreement(s) relating thereto shall be terminated and any outstanding principal, interest and other amounts outstanding thereunder shall be transferred to the line of credit established pursuant to this Agreement and deemed an Advance hereunder.
- 21. Miscellaneous.** (a) This Agreement contains the entire agreement of the parties hereto with respect to the matters covered and the transactions contemplated hereby, and no other agreement, statement or promise made in connection with this line of credit by any party hereto, or by any employee, officer, agent or attorney of any party hereto which is not contained herein shall be valid and binding. (b) Any amendment to this Agreement must be in writing signed by both parties. (c) No failure or delay by CFC in exercising any right or remedy hereunder shall operate as a waiver or preclude the future exercise thereof or of any other right or remedy. (d) If any payment is due from Borrower on a day which CFC is not open for business, then such payment shall be made on the next succeeding day on which CFC is open for business.

- 22. Notices.** All notices, requests and other communications provided for herein including, without limitation, any modifications of, or waivers, requests or consents under, this Agreement shall be given or made in writing (including, without limitation, by telecopy) and delivered to the intended recipient at the "Address for Notices" specified below; or, as to any party, at such other address as shall be designated by such party in a notice to each other party. Except as otherwise provided in this Agreement, all such communications shall be deemed to have been duly given when personally delivered or, in the case of a telecopied or mailed notice, upon receipt, in each case given or addressed as provided for herein. The Address for Notices of the respective parties are as follows:

CFC:

National Rural Utilities  
Cooperative Finance Corporation  
2201 Cooperative Way  
Herndon, Virginia 20171-3025  
Attention: Senior Vice President - Member Services  
Fax: (703) 709-6776

The Borrower:  
Mecklenburg Electric Cooperative  
PO Box 2451, 11633 Hwy 92  
Chase City, VA 23924  
Attention: President and Chief Executive Officer  
Fax: (434) 372-6101

**23. Additional Terms and Conditions.**

- (a) Prior to and as a condition of making the initial Advance, CFC shall have been furnished with an opinion of counsel for Borrower addressing such legal matters as CFC shall reasonably require.
- (b) CFC hereby agrees to reserve \$90,000.00 hereunder to back potential obligations of Borrower to the Virginia Department of Transportation ("VDOT"). To access the reserved funds, Borrower will need to submit documentation in form and substance acceptable to CFC that confirms that proceeds of Advances from the reserved portion are to be used solely to make payment on its obligations to VDOT. Such documentation will include, but not be limited to the appropriate notification from VDOT that Borrower owes payment to VDOT which payment has not been made within a specified timeframe, that such non-payment default has not been cured within any applicable grace period and that VDOT has demanded payment to cure such default.

The reservation in availability will remain in place until Borrower submits a written request in form and substance satisfactory to CFC, confirming that it is no longer necessary for the reservation to remain in effect.

---

**MECKLENBURG ELECTRIC COOPERATIVE**

Signed By: \_\_\_\_\_



Title: \_\_\_\_\_

**Chairman of the Board**

Date Signed: \_\_\_\_\_

**November 15, 2006**

**NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION**

By: \_\_\_\_\_



**Assistant Secretary-Treasurer**

**DAVID W OLAH**

**Loan Number: VA031-P-5102**

(To be filled in by CFC) The effective date of this Agreement is: \_\_\_\_\_

11/29/06

# SENATE OF VIRGINIA



**FRANK M. RUFF, JR.**

15<sup>TH</sup> SENATORIAL DISTRICT  
ALL OF CHARLOTTE, LUNENBURG, MECKLENBURG,  
AND NOTTOWAY COUNTIES; PART OF BRUNSWICK,  
CAMPBELL, DINWIDDIE, HALIFAX, PITTSYLVANIA,  
AND PRINCE GEORGE COUNTIES;  
AND PART OF THE CITY OF DANVILLE  
POST OFFICE BOX 332  
CLARKSVILLE, VIRGINIA 23027

COMMITTEE ASSIGNMENTS  
GENERAL LAWS AND TECHNOLOGY, CHAIR  
AGRICULTURE, CONSERVATION AND  
NATURAL RESOURCES  
FINANCE  
PRIVILEGES AND ELECTIONS  
RULES

July 28, 2020

Department of Housing and Community Development  
600 East Main Street, Suite 300  
Richmond, VA 23219

Dear Representatives of the Virginia Department of Housing and Community Development:

I write this letter in full support of Empower's application for a VATI Grant to build fiber-to-the-home in Mecklenburg County.

Mecklenburg County is a mostly rural area in Southside Virginia which is greatly underserved with broadband access. Now, more than ever, broadband availability is a necessity with COVID-19 making the ability to work from home and virtual learning for education a priority. This grant would enable Empower to provide fiber-to-the home to approximately 425 locations within the Bracey area.

Your serious consideration of this application is greatly appreciated and very much needed. Not only will this help with sustaining the future of advance broadband services in the proposed grant area, but also will promote the future economic stability of our community.

Sincerely,

A handwritten signature in black ink that reads "Frank M. Ruff, Jr." in a cursive style.

Frank M. Ruff, Jr.  
15<sup>th</sup> District  
Senate of Virginia



COMMONWEALTH OF VIRGINIA  
HOUSE OF DELEGATES  
RICHMOND

THOMAS C. "TOMMY" WRIGHT, JR.  
POST OFFICE BOX 1323  
VICTORIA, VIRGINIA 23074  
  
SIXTY-FIRST DISTRICT

COMMITTEE ASSIGNMENTS:  
GENERAL LAWS  
FINANCE  
PUBLIC SAFETY

August 4, 2020

Department of Housing and Community Development  
600 East Main Street, Suite 300  
Richmond, Virginia 23219

**RE: EMPOWER BROADBAND – VATI Grant**

Dear Representative of the VA Department of Housing and Community Development:

I am writing this letter in strong support of the Virginia Telecommunication Initiative Grant application submitted by Empower Broadband and Mecklenburg County. As the Delegate representing the 61<sup>st</sup> District, I have been working hard to facilitate the deployment of broadband service to my constituents and residents in unserved and underserved areas which include Mecklenburg County.

With this grant, Empower Broadband will build fiber-to-the-home in areas that struggle to receive broadband speeds of 10/1 Mbps. This grant would include approximately 425 locations to be served with fiber-to-home, all within the Bracey area.

High-speed internet is vital in providing adequate educational and business opportunities in the areas I represent. I applaud Empower Broadband's efforts and fully support their VATI grant application.

Sincerely,

Thomas "Tommy" Wright

July 27, 2020

Department of Housing and Community Development  
600 East Main Street, Suite 300  
Richmond, VA 23219

Dear DHCD Representative,

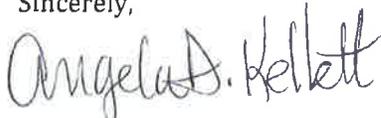
I am writing to you as the Director of Economic Development for Mecklenburg County, VA to share my overwhelming support for EMPOWER and their application for the VATI funding. Being in my position I work closely with our existing industries and new industries wishing to relocate to Mecklenburg County, VA. I am always asked about broadband connectivity for the business, but also about in our area as the employee's will need access as well in their homes. In today's world with so many having to work remotely due to the COVID-19 pandemic, this is increasingly important to industry and to our families.

This grant will assist in reaching those homes that are not served or not served well and will allow residents a better chance at keeping a current job or searching for a new one. This will also help our children in the area who are now faced with virtual learning.

With this grant, Mecklenburg County and EMPOWER will enhance the connectivity with a fiber network design. This fiber build out will enable us to overcome some geographical distances, empower through information, and bring the world to citizens through a few simple strokes of a keyboard.

I am proud to support this effort and look forward to seeing our residents have a better chance at success.

Sincerely,



Angela D. Kellett  
Director of Economic Development  
Mecklenburg County, VA



August 10, 2020

Department of Housing and Community Development  
600 East Main Street, Suite 300  
Richmond, VA 23219

Dear Representatives of the Department of Housing and Community Development:

The Southside Planning District Commission fully supports the Mecklenburg County-Empower Broadband VATI grant application to build direct fiber-to-the-home in existing Buggs Island Telephone (BIT) footprint areas receiving less than 10/1 Mbps. We understand that this grant would include approximately 425 locations to be served with fiber-to-the-home, all within the Bracey area.

Southside PDC partnered with BIT previously on a VATI grant that was successfully selected for funding. Mecklenburg County and Empower have established a common goal to serve residents throughout the county with fiber broadband. Broadband is critical for manufacturing, healthcare, education, data centers, technology, agriculture, forestry, and more. The COVID-19 pandemic has brought broadband needs to the forefront in recent months.

We encourage a positive review of this application as these partners continue to work towards ensuring that no one is without this critically important infrastructure.

Sincerely,

A handwritten signature in blue ink that reads "Deborah B. Gosney". The signature is fluid and cursive, with the first name being the most prominent.

Deborah B. Gosney  
Executive Director



*Mecklenburg County Public Schools*

*Post Office Box 190 · 175 Mayfield Drive · Boydton, Virginia 23917*

*Phone: (434) 738-6111 Fax: (434) 738-6679*

Mr. Paul Nichols  
Division Superintendent

Paula Giammatteo  
Clerk

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Lindell Palmer  
Rob Campbell  
Ricky Allgood  
Glenn Edwards

August 13, 2020

Department of Housing & Community Development  
C/O VATI Grant Administrator  
600 East Main Street, Suite 300  
Richmond, VA 23219

Dear Virginia Department of Housing and Community Development:

I am writing this letter on behalf of Mecklenburg Electric Cooperative (MEC). As a resident of Mecklenburg County, Virginia, and Superintendent of Mecklenburg County Public Schools, I would like to express my full support of the Virginia Telecommunications Initiative (VATI) grant application for Mecklenburg County, Mecklenburg Electric Cooperative and EMPOWER Broadband. MEC has a long and successful history of providing services in the areas they serve in Virginia for over 75 years and has a strong reputation for customer service and community commitment. I am confident in Mecklenburg Electric Cooperative's capabilities for enhancing broadband service for my neighbors in Mecklenburg County.

With this grant, Mecklenburg Electric Cooperative and EMPOWER Broadband will enhance our broadband connectivity with a fiber network design. This fiber build will enable us to overcome some geographical distances, empower us through information, and bring the world to us through a simple stroke of a keyboard. As an unserved rural area with limited Internet services, we face many challenges including limited medical resources and distance between patients, physicians, specialists, and facilities. Because of the rural nature of our area, our students do not receive equitable broadband resources as other students in more urban learning centers. We are lacking the research, distance learning, video, and other tools that advanced broadband can bring to our students. Therefore, it is extremely important that VATI grant funding be obtained to provide for much-needed broadband service to our area.

I strongly urge the Department of Housing and Community Development to fund this VATI grant application, not only will this help with sustaining the future of advanced broadband services in Mecklenburg Electric Cooperative's proposed service area, but also promoting the future economic stability of our community.

Sincerely,

A handwritten signature in black ink that reads "Paul C. Nichols". The signature is written in a cursive style with a long horizontal flourish extending to the right.

Paul C. Nichols  
Superintendent, Mecklenburg County Public Schools  
(434) 738-6111



# SOUTHSIDE VIRGINIA COMMUNITY COLLEGE

August 11, 2020

To Whom It May Concern:

**RE: VATI Grant – Empower and the County of Mecklenburg**

Southside Virginia Community College is pleased to provide our support to Empower and Mecklenburg County for their effort to provide increased broadband access to the Bracey area.

Residents in our communities without access to broadband find themselves left behind in a fast-moving world that demands connectivity. This initiative will provide residents with greater access to education, jobs, and entertainment. The added pressure created by COVID-19 has only made the information gap wider in many of our communities as residents without broadband access are likely shut-out from those jobs that now require teleworking. In addition to area county school systems providing virtual learning, the significance of having the connection is, even more, a pressing need.

It is critical for us to ensure people in rural areas have access to the same opportunities as those in more populated areas—opportunities many of us take for granted, like online job searching, remote work, and online learning.

We hope you will consider funding this worthy initiative. If you are interested in learning more about the College, feel free to visit our website at [www.southside.edu](http://www.southside.edu). Please contact us if additional information is required. Thank you.

Sincerely,

Quentin R. Johnson, Ph.D.  
President

**Christanna Campus** ..... 109 Campus Drive, Alberta, VA 23821 .....434-949-1000     **John H. Daniel Campus** ..... 200 Daniel Road, Keysville, VA 23947 ..... 434-736-2000

**Southside Virginia Education Center** ..... 1300 Greenville County Circle, Emporia, VA 23847 ..... 434-634-9358     **Lake Country Advanced Knowledge Center** ..... 118 E. Danville Road, South Hill, VA 23970 ..... 434-955-2252  
**Southern Virginia Higher Education Center** ..... 820 Bruce Street, South Boston, VA 24592 ..... 434-572-5451     **Occupational Technical Center** ..... Pickett Park, 1041 W. 10<sup>th</sup> Street, Blackstone, VA 23824 ..... 434-292-3101  
**Estes Community Center** ..... 116 N. Main Street, Chase City, VA 23924 ..... 434-372-0194     **Cumberland County Community Center** ..... 1874 Anderson Highway, Cumberland, VA 23040 ..... 804-492-9275



H. Wayne Carter III  
County Administrator  
Emergency Services Director

## Mecklenburg County Board of Supervisors

Post Office Box 307 • Moudton, Virginia 23917

### BOARD OF SUPERVISORS

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August 13, 2020

Department of Housing and Community Development  
600 East Main Street, Suite 300  
Richmond, VA 23219

To Whom It May Concern:

I am writing on behalf of the Mecklenburg County Board of Supervisors to express our full support and willingness to serve as co-applicant of the Virginia Telecommunications Grant application for Empower Broadband. Empower Broadband is a joint effort of Mecklenburg Electric Cooperative and Buggs Island Telephone Cooperative. These two organizations have joined to provide internet and voice service to their customers. Mecklenburg Electric Cooperative has a long history of providing excellent service to its members and wants to continue this proud heritage by providing high-speed internet to its members.

This grant will allow Empower to provide fiber-to-the-home in the Tanglewood Shores Subdivision area. The construction will pass approximately 460 locations and provide up to 1 Gigabyte of broadband speed with this project. This is an unserved area of our County which has many challenges including limited medical resources and distance to medical facilities, as well as, issues with distance learning for our school age students. The ability for employees to be able to work from home without this service is impossible during these times. Because of the rural nature of the area, students do not receive equitable broadband resources as other students in more urban learning centers. They lack the research, distance learning, video and other tools that advanced broadband can bring to our students. Therefore, it is extremely important that broadband grant funding be obtained to provide for much needed broadband service to this area.

We strongly urge that the Department of Housing and Community Development fund this grant application, not only will this help with sustaining the future of advanced broadband services in Empower's proposed funded service area, but also promoting the future economic stability of our community.

Sincerely,

A handwritten signature in black ink, appearing to read "HWC", is written over a horizontal line.

H. Wayne Carter, III  
County Administrator

# Tanglewood Shores Association, Inc.

74 Tanglewood Drive, Bracey, Virginia 23919

Office: 434-636-2254 Fax: 434-636-4262

August 13, 2020

Empower Broadband  
PO Box 129  
Bracey, Virginia 23919

Dear Sir:

Tanglewood Shores Association has been working diligently for years trying to fulfill all the requirements so that we can get your fast speed internet installed in our development. Our residents were excited, then disappointed. Once again, I have asked them to get excited and respond to a survey message I sent on behalf of Empower and Tanglewood for installation of your internet by means of fiber to the home. I have forwarded to you the responses that I received from that mailing. As you can see, the responses were many.

It has been a struggle this year for the families that have school age children to complete schoolwork with the slow internet or some who have no internet. Daily, I would see parents and children sitting on the porch of the community center using our high-speed internet to do their schoolwork. Many times, they would sit in their car because Covid-19 would prevent them from entering the buildings.

As you can see from the survey Tanglewood includes:

- At least 53 school age children currently needing high speed internet to complete schoolwork, and I am sure more that did not respond to the email.
- At least 4 first responders including police officers, fire fighters, EMS, and electrical linemen.
- Health care workers such as doctors, respiratory therapists, nurses, hospital workers and other essential workers who must have online capability 24 hours a day.
- At least a dozen business owners who run their business from home.
- Twenty-seven residents that work from home daily and must have enough internet speed to run video conferencing. One resident, for example, tells us she spends \$200 a month for a double DSL line to have enough speed to work from home. She states that really does not work.

When someone is looking to buy in TSA, one of the first questions is what kind of internet service we have. I would like to be able to respond that we have the fastest, best service available in this area, Empower.

*Linda Adamos*

Linda Adamos, President  
Tanglewood Shore Association

## Michele Taylor

---

**From:** Michele Taylor  
**Sent:** Friday, August 14, 2020 1:03 PM  
**To:** Michele Taylor  
**Subject:** FW: Empower needs our help

On Thursday, August 6, 2020, GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)> wrote:

Empower needs our help with a grant they are applying for this month. Part of the grant is for Tanglewood to have the fiber optics built in here. One of the objectives for this grant is for education and people that have a home business, first responders, police officers, volunteer fire fighters, etc.

They want to know how many school age children are in Tanglewood. We know there are a lot, but they need numbers. They know there are residents that need fiber optics to handle their business matters from their houses, and residents that are first responders that need to be able to have service at their houses.

I am sending this out to you so that we can help them get this grant approved and get the fiber optics grant approved and built in Tanglewood.

Please reply to this email with the number of school age children in your household. If you run your business from your home. If your job requires you to have internet service in order to do your job. A first responder, police officer, EMS, volunteer firefighter, health care workers and anyone that falls under these guidelines. Please respond back to [gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com). Lets help Empower get this grant and start building our fiber network so everyone can finally enjoy our internet with fiber optics all over the community.

The grant has to be in by August 14<sup>th</sup>, so get back to me quickly so I can turn it in to Michelle Taylor.

Linda Adamos, President

Board of Directors

Tanglewood Shores Association

434-636-2254

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:20 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Response for fiber optic need in Tanglewood

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Susan McReynolds <mcrey899@gmail.com>  
**Sent:** Tuesday, August 11, 2020 9:40 AM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Response for fiber optic need in Tanglewood

I work from home in a position that requires the internet. I have to have a double DSL line because I need a stronger internet than a single line provides - this costs me \$200.00 a month but still is not as fast as I really need. Without the internet I wouldn't be able to work from home. I really need Fiber Optic to give me better speed for my work and make the cost more affordable. I am really looking forward to the day when we have Fiber Optic in Tanglewood!

Susan McReynolds  
388 Longwood Drive

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:22 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Fiber Internet in Tanglewood

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

-----Original Message-----

From: April Carroll <takeashotor2@gmail.com>  
Sent: Monday, August 10, 2020 7:00 PM  
To: gmtanglewood@bitbroadband.com  
Subject: Fiber Internet in Tanglewood

Good evening.

I never received an email regarding the possibility of fiber coming to Tanglewood. I did however see a post on FB to reply to this email.

I am currently homeschooling and I'm also a stay at home mom that runs a photography, web design & social media business from my home! Having high speed internet at my house is not only ideal, but a necessity to be able to complete my work in a timely manner without having to leave my home so that I can upload files!

Also, is there any way to get on the email list so that I can keep up with what's going on?

Thanks,

April Carroll  
117 Aspen Way

434.233.7190

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:25 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Fiber

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

-----Original Message-----

**From:** Christina Potter <christina.potter80@yahoo.com>  
**Sent:** Friday, August 7, 2020 7:01 AM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Fiber

We have one high schooler I am health care and my husband job requires him to send email and such from home. We also have a toddler that does online learning to get him ready for school. Along with myself and my husband we do online college and let's not forget we pay all our bills online . Thank you Christina Potter & John Potter  
460 dogwood dr

Sent from my iPhone

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:28 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Grant for fiber connection

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Dolores Lewis <dlewis@mcpsweb.org>  
**Sent:** Thursday, August 6, 2020 4:14 PM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Grant for fiber connection

I live on Hemlock Drive. I am a teacher with Mecklenburg County Public Schools. With all the zoom meetings and online training we have had since school closed on March 13th we need fiber optic. There are several teachers that live in Tanglewood. I am truly hoping we will get it.

Thank You  
Dolores Lewis

--  
Dolores Lewis  
South Hill Elementary  
[dlewis@mcpsweb.org](mailto:dlewis@mcpsweb.org)

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:28 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: EMPOWR GRANT

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

-----Original Message-----

**From:** Candy McAvoy <mcavoy@bitbroadband.com>  
**Sent:** Thursday, August 6, 2020 4:18 PM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** EMPOWR GRANT

I wanted to respond and let you know that I have one school age child in the home that desperately needs better internet for school! I run a small business out of my home that is just getting off the ground. I am a healthcare worker that struggles to keep up with the continuing education requirements from the home with the existing service and often have to go elsewhere. I have a recent college graduate looking for work in broadcasting and film and editing and struggles to provide employers with necessary videos with his skills without going elsewhere to download. We are in dire need of these upgraded services! Please let us know if there is any way we can help make this happen!!!

Thank you,

Candy McAvoy  
Lot A-11  
74 Holly Ct

Sent from my iPhone

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:27 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Need internet

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Donny, Mary <mary.donny@verizon.com>  
**Sent:** Thursday, August 6, 2020 4:36 PM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Need internet

Hi, I have 1 K-12 student and 1 community college student. Both my husband and I work from home and need internet for our work. We are there frequently now due to virtual work and virtual school.

Thanks, Mary



Mary Donny  
Senior Manager  
Global Event Management Center

M 984-227-0492  
[mary.donny@verizon.com](mailto:mary.donny@verizon.com)



## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Saturday, August 15, 2020 1:41 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower survey

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

-----Original Message-----

**From:** Kim Meadows <khmeadows@aol.com>  
**Sent:** Thursday, August 6, 2020 5:33 PM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Empower survey

I am a health care worker. I work for HCA and am a Cardiovascular Technologist . It would be great to have fiber optics here in Tanglewood to be able to communicate with work and to obtain and perform online training and continuing education .

My address is 606 Dogwood Drive  
Bracey, VA 23919 Thank you, Kimberly Meadows

Sent from my iPhone

## Michele Taylor

---

**From:** GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)>  
**Sent:** Saturday, August 15, 2020 1:40 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower Needs Our Help

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)>  
**Sent:** Thursday, August 6, 2020 7:09 PM  
**To:** 'Bryan Latta' <[bryanl71.bl@gmail.com](mailto:bryanl71.bl@gmail.com)>  
**Subject:** RE: Empower Needs Our Help

I know your pain! I have the same problem on Dogwood. I think this will help Empower get the grant and we will all benefit from it.

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Bryan Latta <[bryanl71.bl@gmail.com](mailto:bryanl71.bl@gmail.com)>  
**Sent:** Thursday, August 6, 2020 4:21 PM  
**To:** GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)>  
**Subject:** Re: Empower Needs Our Help

Hey Linda,

I'm at 288 Almond Ct. I work at Food Lion in Littleton but I have a small graphics business I run on Etsy from home. Sometimes the internet is slow as molasses and I pay for the 10 mb and probably get 3mb most of the time. So ready for the fiber to be here!! Thanks for looking after us I appreciate it!

Bryan Latta

On Aug 6, 2020, at 3:07 PM, GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)> wrote:

Empower needs our help with a grant they are applying for this month. Part of the grant is for Tanglewood to have the fiber optics built in here. One of the objectives for this grant is for education and people that have a home business, first responders, police officers, volunteer fire fighters, etc.

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Saturday, August 15, 2020 2:04 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower needs our help

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Thursday, August 6, 2020 8:06 PM  
**To:** 'Holly Watts' <wattsholly@yahoo.com>  
**Subject:** RE: Empower needs our help

Thank you!

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Holly Watts <wattsholly@yahoo.com>  
**Sent:** Thursday, August 6, 2020 3:23 PM  
**To:** [gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)  
**Subject:** Re: Empower needs our help

My husband is a first responder. I also run a business from home and my job requires me to be able to have internet access from home.

Holly Watts

[Sent from Yahoo Mail on Android](#)

On Thu, Aug 6, 2020 at 3:03 PM, GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)> wrote:

Empower needs our help with a grant they are applying for this month. Part of the grant is for Tanglewood to have the fiber optics built in here. One of the objectives for this grant is for education and people that have a home business, first responders, police officers, volunteer fire fighters, etc.

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:21 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower needs our help

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Carlton Morris <cmbobcat@bitbroadband.com>  
**Sent:** Monday, August 10, 2020 7:24 PM  
**To:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Subject:** Re: Empower needs our help

I own a business and have a grandchild that lives with us. She will start school this year.

----- Original Message -----

**From:** GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)>  
**To:** [gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)  
**Sent:** Thu, 06 Aug 2020 15:02:35 -0400 (EDT)  
**Subject:** Empower needs our help

```
margin: 0.0in;
font-size: 11.0pt;
font-family: Calibri , sans-serif;
}
a:link, span.MsoHyperlink {
color: rgb(5,99,193);
text-decoration: underline;
}
span.EmailStyle17 {
font-family: Calibri , sans-serif;
color: windowtext;
}
*.MsoChpDefault {
font-family: Calibri , sans-serif;
}
div.WordSection1 {
page: WordSection1;
}
/*]]>*/
```

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:23 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower Grant

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Charles Elder <ktelder@bitbroadband.com>  
**Sent:** Friday, August 7, 2020 9:36 PM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Empower Grant

Evening. I just saw the post on the Tanglewood Facebook page. This is Tina Elder. I have 2 children. One that is starting PVMS and one that will be doing online college. So 2 in all that needs better internet. Thank you for keeping us informed. We live at 109 Beechwood Dr. Lot #D28

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Saturday, August 15, 2020 2:04 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Thursday, August 6, 2020 8:08 PM  
**To:** 'Amber Hammond' <cjnhamom5@gmail.com>  
**Subject:** RE: Empower

Thank you for your kind words. We try hard to make Tanglewood a great place to live. Also thanks for sending this in. It is so important we get high speed internet in here.

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Amber Hammond <cjnhamom5@gmail.com>  
**Sent:** Thursday, August 6, 2020 3:22 PM  
**To:** [gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)  
**Subject:** Empower

We have three children in our home that homeschool. My son is a fire fighter.

Thank you for fixing the slide!!!

We appreciate all you do!!

The Hammond's

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:27 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Tanglewood Internet

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Rebecca Newton <rbake022@gmail.com>  
**Sent:** Thursday, August 6, 2020 4:25 PM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Tanglewood Internet

My name is Rebecca Newton and we live on Almond Court in Tanglewood. We were asked to send an email with the number of school aged children and such in our home. We have 2 children-only 1 in school but my job does require home internet and we've been working from home for the last 2 months. Thank you

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:23 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower needs our help

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Steve Polansky <ineedtv2@gmail.com>  
**Sent:** Friday, August 7, 2020 4:32 PM  
**To:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Subject:** Re: Empower needs our help

Run business from home. 572 beechwood dr

On Thu, Aug 6, 2020 at 3:03 PM GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)> wrote:

Empower needs our help with a grant they are applying for this month. Part of the grant is for Tanglewood to have the fiber optics built in here. One of the objectives for this grant is for education and people that have a home business, first responders, police officers, volunteer fire fighters, etc.

They want to know how many school age children are in Tanglewood. We know there are a lot, but they need numbers. They know there are residents that need fiber optics to handle their business matters from their houses, and residents that are first responders that need to be able to have service at their houses.

I am sending this out to you so that we can help them get this grant approved and get the fiber optics grant approved and built in Tanglewood.

Please reply to this email with the number of school age children in your household. If you run your business from your home. If your job requires you to have internet service in order to do your job. A first responder, police officer, EMS, volunteer firefighter, health care workers and anyone that falls under these guidelines. Please respond back to [gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com). Lets help Empower get this grant and start building our fiber network so everyone can finally enjoy our internet with fiber optics all over the community.

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:28 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Fiber Optics

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Sherry Lyford <mlyford1@aol.com>  
**Sent:** Thursday, August 6, 2020 4:14 PM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Fiber Optics

We have a small business that desperately needs faster internet. Please add us to the list.

Sherry Lyford  
Forking Good Gourmet  
Bracey, VA 23919  
904-654-4402  
[www.forkinggoodgourmet.com](http://www.forkinggoodgourmet.com)

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:29 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Use of internet

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Jolaflor Cabildo <jolaflorc@yahoo.com>  
**Sent:** Thursday, August 6, 2020 3:23 PM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Use of internet

I used internet most of the time since I am a teacher

Joke Lopez

[Sent from Yahoo Mail on Android](#)

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:25 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Grant

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

-----Original Message-----

**From:** Angie <angieil@yahoo.com>  
**Sent:** Thursday, August 6, 2020 10:05 PM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Grant

Hi

We have 2 children doing virtual learning this year  
326 hemlock drive

Sent from my iPhone

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Saturday, August 15, 2020 1:54 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower

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Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

-----Original Message-----

From: GM Tanglewood <gmtanglewood@bitbroadband.com>  
Sent: Friday, August 7, 2020 11:35 AM  
To: 'Jody Jessup' <jodyjessup@vaumc.org>  
Subject: RE: Empower

Thank you

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

-----Original Message-----

From: Jody Jessup <jodyjessup@vaumc.org>  
Sent: Thursday, August 6, 2020 9:38 PM  
To: gmtanglewood@bitbroadband.com  
Subject: Empower

Linda, I do run a business from my home and must have internet that I can rely on. Hope Empower can get that grant and hook us up!!

Jody



## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Saturday, August 15, 2020 2:02 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower Needs Our Help

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Thursday, August 6, 2020 8:13 PM  
**To:** 'sdepew2@cox.net' <sdepew2@cox.net>  
**Subject:** RE: Empower Needs Our Help

Thank you!

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** [sdepew2@cox.net](mailto:sdepew2@cox.net) <[sdepew2@cox.net](mailto:sdepew2@cox.net)>  
**Sent:** Thursday, August 6, 2020 3:46 PM  
**To:** GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)>  
**Subject:** Re: Empower Needs Our Help

This would be great! My husband has a home based business and needs access to high speed internet. Also, I telework and need access as well.

Sandra and James Depew  
Lot W9

On Aug 6, 2020 3:05 PM, GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)> wrote:

Empower needs our help with a grant they are applying for this month. Part of the grant is for Tanglewood to have the fiber optics built in here. One of the objectives for this grant is for education and people that have a home business, first responders, police officers, volunteer fire fighters, etc.

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Saturday, August 15, 2020 1:59 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Grant

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 7, 2020 11:36 AM  
**To:** 'Wendy Oliver' <wen.harness@gmail.com>  
**Subject:** RE: Grant

Thank you

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Wendy Oliver <[wen.harness@gmail.com](mailto:wen.harness@gmail.com)>  
**Sent:** Thursday, August 6, 2020 6:46 PM  
**To:** [gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)  
**Subject:** Grant

Wendy Marsh, Lot M26. I'm an LPN.

## Michele Taylor

---

**From:** GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)>  
**Sent:** Saturday, August 15, 2020 1:55 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower needs our help

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)>  
**Sent:** Friday, August 7, 2020 11:34 AM  
**To:** 'Christina Wall' <[cmwall75@hotmail.com](mailto:cmwall75@hotmail.com)>  
**Subject:** RE: Empower needs our help

Thank you

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Christina Wall <[cmwall75@hotmail.com](mailto:cmwall75@hotmail.com)>  
**Sent:** Thursday, August 6, 2020 9:52 PM  
**To:** GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)>  
**Subject:** Re: Empower needs our help

2 school aged children and one nurse in the home.

Sent from my iPhone

On Aug 6, 2020, at 3:03 PM, GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)> wrote:

Empower needs our help with a grant they are applying for this month. Part of the grant is for Tanglewood to have the fiber optics built in here. One of the objectives for this grant is for education and people that have a home business, first responders, police officers, volunteer fire fighters, etc.

They want to know how many school age children are in Tanglewood. We know there are a lot, but they need numbers. They know there are residents that need fiber optics to handle their business matters from their houses, and residents that are first responders that need to be able to have service at their houses.

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Saturday, August 15, 2020 1:42 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower Needs Our Help

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

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Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Cassandra Jones <cassie.rae88@hotmail.com>  
**Sent:** Thursday, August 6, 2020 5:31 PM  
**To:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Subject:** Re: Empower Needs Our Help

Good afternoon,

School age children: 4  
EMS: yes  
Home business: yes

Thanks,  
Cassandra Jones

---

**From:** GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)>  
**Sent:** Thursday, August 6, 2020 3:05 PM  
**To:** [gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com) <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)>  
**Subject:** Empower Needs Our Help

Empower needs our help with a grant they are applying for this month. Part of the grant is for Tanglewood to have the fiber optics built in here. One of the objectives for this grant is for education and people that have a home business, first responders, police officers, volunteer fire fighters, etc.

They want to know how many school age children are in Tanglewood. We know there are a lot, but they need numbers. They know there are residents that need fiber optics to handle their business matters from their houses, and residents that are first responders that need to be able to have service at their houses.

I am sending this out to you so that we can help them get this grant approved and get the fiber optics grant approved and built in Tanglewood.

Please reply to this email with the number of school age children in your household. If you run your business from your home. If your job requires you to have internet service in order to do your job. A first responder, police officer, EMS, volunteer firefighter, health care workers and anyone that falls under these guidelines. Please respond back to

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Saturday, August 15, 2020 1:40 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower Fiber Optics

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Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

-----Original Message-----

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Thursday, August 6, 2020 7:58 PM  
**To:** 'Michael Maxwell' <mamaxwellsr@gmail.com>  
**Subject:** RE: Empower Fiber Optics

Thank you!

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

-----Original Message-----

**From:** Michael Maxwell <mamaxwellsr@gmail.com>  
**Sent:** Thursday, August 6, 2020 4:02 PM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Empower Fiber Optics

Hi Linda- Our two local sons and their families live in Durham and use our cottage at 328 Aspen Way quite a bit during the year. Three grandchildren need high speed internet for their on line classes. The four parents use high speed internet for their business as they tele commute. If you need further clarification please please text or email me. Cellphone 919-812-2491. Best regards. Michael Maxwell-Lot 37A

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Saturday, August 15, 2020 1:37 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower

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Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Emily Mihnovets <emily.mihnovets@gmail.com>  
**Sent:** Thursday, August 6, 2020 8:53 PM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Empower

Hi tanglewood,

We have 1 school aged child.

I work from home and my husband is a doctor at VCU CMH and is constantly working from home as well on notes and charts.

We would LOVE better internet here!!!!!!

Thanks,

Emily Mihnovets  
645 Dogwood Drive

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Saturday, August 15, 2020 1:36 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower needs our help

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Robbie <radcockii@yahoo.com>  
**Sent:** Friday, August 7, 2020 7:04 AM  
**To:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Subject:** Re: Empower needs our help

Linda...

We have 2 school-aged children....and Kim and I are required to be on call 24 hrs a day and have internet access at all times.

On Thursday, August 6, 2020 03:04:44 PM EDT, GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)> wrote:

Empower needs our help with a grant they are applying for this month. Part of the grant is for Tanglewood to have the fiber optics built in here. One of the objectives for this grant is for education and people that have a home business, first responders, police officers, volunteer fire fighters, etc.

They want to know how many school age children are in Tanglewood. We know there are a lot, but they need numbers. They know there are residents that need fiber optics to handle their business matters from their houses, and residents that are first responders that need to be able to have service at their houses.

I am sending this out to you so that we can help them get this grant approved and get the fiber optics grant approved and built in Tanglewood.

Please reply to this email with the number of school age children in your household. If you run your business from your home. If your job requires you to have internet service in order to do your job. A first responder, police officer, EMS, volunteer firefighter, health care workers and anyone that falls under these guidelines. Please respond back to

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Saturday, August 15, 2020 1:36 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower Information

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Andrew Reynolds <wandrew.reynolds@gmail.com>  
**Sent:** Friday, August 7, 2020 8:28 AM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Empower Information

Morning Linda,

My name is Andrew Reynolds and we purchased 85 Spruce Court back in May. My wife and I both work 100% from home and need reliable fast internet (for video calls and presentations) to perform our jobs. Currently, we have to schedule our meetings separately to ensure we don't have any internet issues. Also, we have two kids ages 6 and 8. Both kids are signed up for remote schooling for the upcoming school year. We are hearing they both will be required to be online at least 4 hours each school day. Getting fiber would be a huge help.

Please let me know if you need anything additionally.

Thank you,

Andrew Reynolds  
919-434-8090

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Saturday, August 15, 2020 1:32 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW:

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Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Sharon Floyd <iamapir8@yahoo.com>  
**Sent:** Thursday, August 13, 2020 7:25 PM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:**

Good evening!

I am excited at the thought of getting fiber optics in Tanglewood and hoping that section W is included.

In our household, I work from home and my husband is in graduate school full time and online, so 2 for 147 Timber Court.

Thanks,

Sharon Floyd

[Sent from Yahoo Mail for iPhone](#)

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Saturday, August 15, 2020 1:37 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower needs our help

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Bob Via <bobvia4@gmail.com>  
**Sent:** Friday, August 7, 2020 6:32 AM  
**To:** 'GM Tanglewood' <gmtanglewood@bitbroadband.com>  
**Subject:** RE: Empower needs our help

We have no children, but Ann and I need internet for our jobs since we both work from home. We're at 53 Myrtle Place.

**From:** GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)>  
**Sent:** Thursday, August 6, 2020 3:03 PM  
**To:** [gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)  
**Subject:** Empower needs our help

Empower needs our help with a grant they are applying for this month. Part of the grant is for Tanglewood to have the fiber optics built in here. One of the objectives for this grant is for education and people that have a home business, first responders, police officers, volunteer fire fighters, etc.

They want to know how many school age children are in Tanglewood. We know there are a lot, but they need numbers. They know there are residents that need fiber optics to handle their business matters from their houses, and residents that are first responders that need to be able to have service at their houses.

I am sending this out to you so that we can help them get this grant approved and get the fiber optics grant approved and built in Tanglewood.

Please reply to this email with the number of school age children in your household. If you run your business from your home. If your job requires you to have internet service in order to do your job. A first responder, police officer, EMS, volunteer firefighter, health care workers and anyone that falls under these guidelines. Please respond back to [gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com). Let's help Empower get this grant and start building our fiber network so everyone can finally enjoy our internet with fiber optics all over the community.

The grant has to be in by August 14<sup>th</sup>, so get back to me quickly so I can turn it in to Michelle Taylor.

Linda Adamos, President  
Board of Directors

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:20 PM  
**To:** Michele Taylor; Dina Blanton  
**Subject:** FW: Empower needs our help

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Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** tammy parker <tammyparker428@aol.com>  
**Sent:** Tuesday, August 11, 2020 2:22 PM  
**To:** gmtanglewood@bitbroadband.com  
**Subject:** Re: Empower needs our help

I have one school aged child in the home. I work from home requiring internet access daily.

Sent from AOL Mobile Mail  
Get the new AOL app: [mail.mobile.aol.com](mailto:mail.mobile.aol.com)

On Thursday, August 6, 2020, GM Tanglewood <[gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)> wrote:

Empower needs our help with a grant they are applying for this month. Part of the grant is for Tanglewood to have the fiber optics built in here. One of the objectives for this grant is for education and people that have a home business, first responders, police officers, volunteer fire fighters, etc.

They want to know how many school age children are in Tanglewood. We know there are a lot, but they need numbers. They know there are residents that need fiber optics to handle their business matters from their houses, and residents that are first responders that need to be able to have service at their houses.

I am sending this out to you so that we can help them get this grant approved and get the fiber optics grant approved and built in Tanglewood.

Please reply to this email with the number of school age children in your household. If you run your business from your home. If your job requires you to have internet service in order to do your job. A first responder, police officer, EMS, volunteer firefighter, health care workers and anyone that falls under these guidelines. Please respond back to

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:21 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: Empower Needs Our Help

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Christine Barden <christinebarden@bitbroadband.com>  
**Sent:** Tuesday, August 11, 2020 9:04 AM  
**To:** 'GM Tanglewood' <gmtanglewood@bitbroadband.com>  
**Subject:** RE: Empower Needs Our Help

Our older daughter works from home.  
Our granddaughter does virtual school work from home.  
Please add one adult and one 12 year old to the Empower grant numbers.

---

**From:** GM Tanglewood [<mailto:gmtanglewood@bitbroadband.com>]  
**Sent:** Thursday, August 06, 2020 3:06 PM  
**To:** [gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com)  
**Subject:** Empower Needs Our Help

Empower needs our help with a grant they are applying for this month. Part of the grant is for Tanglewood to have the fiber optics built in here. One of the objectives for this grant is for education and people that have a home business, first responders, police officers, volunteer fire fighters, etc.

They want to know how many school age children are in Tanglewood. We know there are a lot, but they need numbers. They know there are residents that need fiber optics to handle their business matters from their houses, and residents that are first responders that need to be able to have service at their houses.

I am sending this out to you so that we can help them get this grant approved and get the fiber optics grant approved and built in Tanglewood.

Please reply to this email with the number of school age children in your household. If you run your business from your home. If your job requires you to have internet service in order to do your job. A first responder, police officer, EMS, volunteer firefighter, health care workers and anyone that falls under these guidelines. Please respond back to [gmtanglewood@bitbroadband.com](mailto:gmtanglewood@bitbroadband.com). Lets help Empower get this grant and start building our fiber network so everyone can finally enjoy our internet with fiber optics all over the community.

The grant has to be in by August 14<sup>th</sup>, so get back to me quickly so I can turn it in to Michelle Taylor.

## Michele Taylor

---

**From:** GM Tanglewood <gmtanglewood@bitbroadband.com>  
**Sent:** Friday, August 14, 2020 12:24 PM  
**To:** Dina Blanton; Michele Taylor  
**Subject:** FW: computer use

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Linda Adamos, President  
Board of Directors  
Tanglewood Shores Association  
434-636-2254

**From:** Roy and Dot <rdtrans@bitbroadband.com>  
**Sent:** Friday, August 7, 2020 11:11 AM  
**To:** gmtanglewood <gmtanglewood@bitbroadband.com>  
**Subject:** computer use

Use computer for : Small Business must have –all is done by computer  
Personal use  
Music and etc.

Thanks,,, Roy and Dot Johnson

**Mecklenburg Co. Attachment #11 - Derivation of Costs**

Product	Total	VATI	Non-VATI	Source of Estimate	Date
<b>Customer Premise Costs</b>	\$ -	\$ -	\$ -		
Outdoor Wall Mount Labor	\$ 18,260	\$ -	\$ 18,260	MEC based on 2018-20 projects	8/10/2020
Outdoor Wall Mount Materials	\$ 8,244	\$ -	\$ 8,244	MEC based on 2018-20 projects	8/10/2020
Splicing Labor	\$ 20,577	\$ -	\$ 20,577	MEC based on 2018-20 projects	8/10/2020
Splicing Materials	\$ 113	\$ -	\$ 113	MEC based on 2018-20 projects	8/10/2020
Staking Labor	\$ 15,216	\$ -	\$ 15,216	MEC based on 2018-20 projects	8/10/2020
ONT (router) labor	\$ 116,200	\$ -	\$ 116,200	MEC based on 2018-20 projects	8/10/2020
ONT (router) materials	\$ 84,172	\$ -	\$ 84,172	MEC based on 2018-20 projects	8/10/2020
<b>Network Equipment</b>					
E7-2 Package Chassis	\$ 697	\$ -	\$ 697	MEC based on 2018-20 projects	8/10/2020
GPON SFP OIM, Class B+ 1490/1310nm	\$ 9,600	\$ -	\$ 9,600	MEC based on 2018-20 projects	8/10/2020
E7-2 8 Card PON Unit	\$ 19,593	\$ -	\$ 19,593	MEC based on 2018-20 projects	8/10/2020

CDBG Derivation of Cost

<b>Aerial Construction Costs</b>	\$ -	\$ -	\$ -		
Aerial Construction Labor	\$ 509,455	\$ 189,925	\$ 319,530	MEC based on 2018-20 projects	8/10/2020
Aerial Materials	\$ 249,292	\$ 92,936	\$ 156,356	MEC based on 2018-20 projects	8/10/2020
<b>Underground Construction Costs</b>	\$ -	\$ -	\$ -		
Underground Construction Labor	\$ 167,971	\$ 62,620	\$ 105,351	MEC based on 2018-20 projects	8/10/2020
Underground Materials	\$ 104,328	\$ 38,894	\$ 65,435	MEC based on 2018-20 projects	8/10/2020
<b>Drop Installation Cost</b>	\$ -	\$ -	\$ -		
Drop Installation Labor	\$ 117,511	\$ 43,808	\$ 73,703	MEC based on 2018-20 projects	8/10/2020
Drop Installation Materials	\$ 56,708	\$ 21,199	\$ 35,509	MEC based on 2018-20 projects	8/10/2020
<b>TOTAL</b>	\$ 1,497,937	\$ 449,381	\$ 1,048,556		

Project Name		Consumers		414		Average	
EMPOWER /MEC		Take Rate		80.0000%		Cost per	
Single Project Cost Template		Total		332		Connect	
EMPOWER		Connects		332		Connect	
DESCRIPTION	LABOR	MATERIAL	KEY IN RED NUMBERS	QUANTITY	DESCRIPTION	AMOUNT	Average Cost per Connect
Outdoor wall mount	\$55.00	\$24.83	332	332	Connects	\$26,503.56	
Splicing (2)	\$61.98	\$0.34	332	332	Connects	\$20,690.24	
Staking	\$45.83		332	332	Connects	\$15,215.56	
ONT (router)	\$350.00	\$253.53	332	332	Connects	\$200,371.96	\$791.51
E7-2 Package Chassis		\$696.50	1	1	Each	\$696.50	
Battery String Kit, Heater and Connectors		\$7,100.00	0	0	Each	\$0.00	
GPON SFP OIM, Class B+ 1490/1310nm		\$600.00	16	16	Each	\$9,600.00	
E7-2 8 Card PON unit		\$9,796.50	2	2	Each	\$19,593.00	
ODC-1000E E7-2 Cabinet Package		\$10,762.50	0	0	Each	\$0.00	
E7-2 Package Chassis		\$696.50	0	0	Each	\$0.00	
GPON SFP OIM, Class B+ 1490/1310nm		\$600.00	0	0	Each	\$0.00	
E7-2 8 Card PON unit		\$9,796.50	0	0	Each	\$0.00	
Total EMPOWER	\$512.81	\$40,327.20			Each	\$292,670.82	\$292,670.82
					Each	\$29,889.50	\$90.03
					Each	\$292,670.82	\$881.54

Mecklenburg Electric Cooperative		Main Line		22.35		Average	
Back Haul to House Feet		Total Miles		236.00		Cost per Mile	
DESCRIPTION	LABOR	MATERIAL	KEY IN RED NUMBERS	QUANTITY	DESCRIPTION	AMOUNT	Average Cost per Mile
Aerial Construction (72% of Total Miles)	\$31,658.90	\$15,491.69	16.092	16.092	Miles	\$758,747.29	
Underground Construction (28% of Total Miles)	\$26,840.99	\$16,671.21	6.258	6.258	Miles	\$272,299.35	
Equipment		\$0.00	0.0	0.0	Each	\$0.00	
Back Haul and Drop Construction	\$1,499.78	\$0.72376	78.352	78.352	Feet	\$174,218.81	\$46,131.84
Total Construction	\$58,501.39	\$32,163.62			Feet	\$1,205,265.45	

Total EMPOWER Projects Cost Estimates as of	1-Jul-19	\$292,670.82
Total MEC Projects Cost Estimates as of	1-Jul-19	\$1,205,265.45
Total Projects Cost Estimates as of	1-Jul-19	\$1,497,936.27



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Form 477 Filing Summary

FRN: 0002031698 | Data as of: Jun 30, 2019 | Operations: ILEC | Submission Status: Original - Submitted | Last Updated: Aug 30, 2019 14:45:10

Filer Identification	Section	Question	Response
	<b>Filer Information</b>	Company Name	Buggs Island Telephone Cooperative
		Holding Company Name	Buggs Island Telephone Cooperative
		SAC ID	190219
		499 ID	801312
	<b>Data Contact Information</b>	Data Contact Name	Carolyn Piercy
		Data Contact Phone Number	(434) 636-2274 ext: 227
		Data Contact E-mail	cpiercy@bitbroadband.com
	<b>Emergency Operations Contact Information</b>	Emergency Operations Name	Glenn Isaacs
		Emergency Operations Phone Number	(434) 917-3822
		Emergency Operations E-mail	glenn@bitbroadband.com
	<b>Certifying Official Contact Information</b>	Certifying Official Name	Michele Taylor
		Certifying Official Phone Number	(434) 636-2274 ext: 227
		Certifying Official E-mail	cpiercy@bitbroadband.com

Data Submitted	Form Section	File Name	Date & Time	Number of Rows
	Fixed Broadband Deployment	BIT June 2019 477.csv	Aug 30, 2019 11:34:43	8041
	Fixed Broadband Subscription	FCC477FixedBroadbandSubscriptionReport~07-01-2019~0002031698.csv	Aug 30, 2019 13:58:02	88
	Fixed Voice Subscription	FCC477FixedVoiceSubscriptionReport~07-01-2019~0002031698.csv	Aug 30, 2019 14:05:31	10

**Fixed Broadband Deployment**  
**Census Block Counts by State, DBA Name and Technology**

State	DBA Name	Technology	Blocks
North Carolina	Buggs Island Telephone Cooperative	Asymmetric xDSL	36
		Terrestrial Fixed Wireless	2
Virginia	Buggs Island Telephone Cooperative	Asymmetric xDSL	1029
		Optical Carrier/Fiber to the End User	51
		Terrestrial Fixed Wireless	6923
<b>Total</b>			<b>8041</b>

**Fixed Broadband Subscriptions by State, Technology and End-user Type**

**Fixed  
Broadband  
Subscription**

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
North Carolina	Asymmetric xDSL	10	61	1	62
Virginia	Asymmetric xDSL	46	1818	84	1902
	Optical Carrier/Fiber to the End User	11	190	8	198
	Terrestrial Fixed Wireless	21	411	17	428
<b>Total</b>		<b>88</b>	<b>2480</b>	<b>110</b>	<b>2590</b>

**Fixed Broadband Subscriptions by Bandwidths and End-user Type**

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
0.256	0.128	48	2	50
3.000	1.000	841	39	880
4.000	1.000	16	5	21
5.000	1.000	342	19	361
6.000	1.000	4	3	7
8.000	1.000	22	3	25
10.000	1.000	1018	27	1045
15.000	1.000	1	1	2
25.000	3.000	7	3	10
25.000	25.000	131	3	134
50.000	50.000	41	1	42
100.000	100.000	8	1	9
200.000	200.000	1	3	4
<b>Total</b>		<b>2480</b>	<b>110</b>	<b>2590</b>

**Fixed Broadband Subscriptions by Technology, Bandwidths and End-user Type**

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
Asymmetric xDSL	0.256	0.128	48	2	50
	3.000	1.000	832	39	871
	4.000	1.000	16	5	21
	5.000	1.000	342	19	361
	6.000	1.000	4	3	7
	8.000	1.000	22	3	25
	10.000	1.000	607	10	617
	15.000	1.000	1	1	2
	25.000	3.000	7	3	10
Optical Carrier/Fiber to the End User	3.000	1.000	9	0	9
	25.000	25.000	131	3	134
	50.000	50.000	41	1	42
	100.000	100.000	8	1	9
	200.000	200.000	1	3	4

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Business /		Total
			Consumer	Govt	
Terrestrial Fixed Wireless	10,000	1,000	411	17	428
<b>Total</b>			<b>2480</b>	<b>110</b>	<b>2590</b>

**Fixed Voice Subscription**

**VGE Lines and VoIP Subscriptions by State and End-user Type**

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
North Carolina	75	73	0	0
Virginia	2941	2729	0	0
<b>Total</b>	<b>3016</b>	<b>2802</b>	<b>0</b>	<b>0</b>

**Fixed Voice Subscription (VGE Lines)**

**VGE Lines Provided to Unaffiliated Providers by State**

State	Wholesale	UNE-L
North Carolina	0	0
Virginia	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

**VGE Lines Provided to End Users by State, Bundle and Product Type**

State	Total	by Bundle		by Product Type			
		Sold w/ Internet	Sold w/o Internet	Consumer		Bus-Govt	
				& No PIC	& PIC	& No PIC	& PIC
North Carolina	75	59	16	22	51	1	1
Virginia	2941	2100	841	815	1914	148	64
<b>Total</b>	<b>3016</b>	<b>2159</b>	<b>857</b>	<b>837</b>	<b>1965</b>	<b>149</b>	<b>65</b>

**VGE Lines Provided to End Users by State, Ownership and Last-mile Medium**

State	Total	by Ownership			by Last-mile Medium			
		Owned	UNE-L	Resale	FTTP	Coax	Fixed Wireless	Copper
North Carolina	75	75	0	0	0	0	0	75
Virginia	2941	2941	0	0	198	0	0	2743
<b>Total</b>	<b>3016</b>	<b>3016</b>	<b>0</b>	<b>0</b>	<b>198</b>	<b>0</b>	<b>0</b>	<b>2818</b>



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Form 477 Filing Summary

FRN: 0002031698 | Data as of: Dec 31, 2019 | Operations: ILEC | Submission Status: Revised - Submitted | Last Updated: May 15, 2020 13:47:36

Filer Identification	Section	Question	Response
	Filer Information	Company Name	Buggs Island Telephone Cooperative
		Holding Company Name	Buggs Island Telephone Cooperative
		SAC ID	190219
		499 ID	801312
	Data Contact Information	Data Contact Name	Carolyn Piercy
		Data Contact Phone Number	(434) 917-1151
		Data Contact E-mail	cpiercy@bitbroadband.com
	Emergency Operations Contact Information	Emergency Operations Name	Glenn Isaacs
		Emergency Operations Phone Number	(434) 917-3822
		Emergency Operations E-mail	glenn@bitbroadband.com
	Certifying Official Contact Information	Certifying Official Name	Michele Taylor
		Certifying Official Phone Number	(434) 636-2274
		Certifying Official E-mail	cpiercy@bitbroadband.com

Data Submitted	Form Section	File Name	Date & Time	Number of Rows
	Fixed Broadband Deployment	BIT Dec 2019 477 2.csv	May 15, 2020 12:12:58	1354
	Fixed Broadband Subscription	FCC477FixedBroadbandSubscriptionReport~12-31-2019~0002031698.csv	May 15, 2020 13:45:15	67
	Fixed Voice Subscription	BIT Voice Subscription Dec 2019.csv	May 15, 2020 12:12:58	10

**Fixed Broadband Deployment**

**Census Block Counts by State, DBA Name and Technology**

State	DBA Name	Technology	Blocks
North Carolina	Buggs Island Telephone Cooperative	Asymmetric xDSL	36
		Optical Carrier/Fiber to the End User	7
		VDSL	6
Virginia	Buggs Island Telephone Cooperative	Asymmetric xDSL	1029
		Optical Carrier/Fiber to the End User	79
		VDSL	197
<b>Total</b>			<b>1354</b>

**Fixed Broadband Subscription**

**Fixed Broadband Subscriptions by State, Technology and End-user Type**

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
North Carolina	Asymmetric xDSL	10	53	1	54
	Optical Carrier/Fiber to the End User	2	4	0	4
Virginia	Asymmetric xDSL	44	1726	86	1812
	Optical Carrier/Fiber to the End User	11	285	8	293
<b>Total</b>		<b>67</b>	<b>2068</b>	<b>95</b>	<b>2163</b>

**Fixed Broadband Subscriptions by Bandwidths and End-user Type**

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
0.256	0.128	42	2	44
3.000	0.384	733	38	771
3.000	1.000	14	0	14
4.000	0.512	16	4	20
5.000	0.512	326	18	344
6.000	0.512	3	3	6
8.000	0.512	28	3	31
10.000	1.000	625	13	638
15.000	1.000	0	1	1
25.000	3.000	6	5	11
25.000	25.000	13	1	14
50.000	50.000	69	1	70
100.000	100.000	4	3	7
200.000	200.000	189	3	192
<b>Total</b>		<b>2068</b>	<b>95</b>	<b>2163</b>

**Fixed Broadband Subscriptions by Technology, Bandwidths and End-user Type**

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
Asymmetric xDSL	0.256	0.128	42	2	44
	3.000	0.384	733	38	771
	4.000	0.512	16	4	20
	5.000	0.512	326	18	344
	6.000	0.512	3	3	6
	8.000	0.512	28	3	31
	10.000	1.000	625	13	638
	15.000	1.000	0	1	1
	25.000	3.000	6	5	11
	Optical Carrier/Fiber to the End User	3.000	1.000	14	0
25.000		25.000	13	1	14
50.000		50.000	69	1	70

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Business /		Total
			Consumer	Govt	
	100,000	100,000	4	3	7
	200,000	200,000	189	3	192
<b>Total</b>			<b>2068</b>	<b>95</b>	<b>2163</b>

**Fixed Voice Subscription**

**VGE Lines and VoIP Subscriptions by State and End-user Type**

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
North Carolina	70	68	0	0
Virginia	2887	2691	0	0
<b>Total</b>	<b>2957</b>	<b>2759</b>	<b>0</b>	<b>0</b>

**Fixed Voice Subscription (VGE Lines)**

**VGE Lines Provided to Unaffiliated Providers by State**

State	Wholesale	UNE-L
North Carolina	0	0
Virginia	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

**VGE Lines Provided to End Users by State, Bundle and Product Type**

State	Total	by Bundle		by Product Type			
		Sold w/ Internet	Sold w/o Internet	Consumer		Bus-Govt	
				& No PIC	& PIC	& No PIC	& PIC
North Carolina	70	58	12	23	45	1	1
Virginia	2887	2121	766	907	1784	118	78
<b>Total</b>	<b>2957</b>	<b>2179</b>	<b>778</b>	<b>930</b>	<b>1829</b>	<b>119</b>	<b>79</b>

**VGE Lines Provided to End Users by State, Ownership and Last-mile Medium**

State	Total	by Ownership				by Last-mile Medium			
		Owned	UNE-L	Resale	FTTP	Coax	Fixed Wireless	Copper	
North Carolina	70	70	0	0	4	0	0	66	
Virginia	2887	2887	0	0	294	0	0	2593	
<b>Total</b>	<b>2957</b>	<b>2957</b>	<b>0</b>	<b>0</b>	<b>298</b>	<b>0</b>	<b>0</b>	<b>2659</b>	

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# MARKETING PLAN

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# EMPOWER



**BROADBAND**

*Powered by MEC*

**2020 VATI GRANT**

EMPOWER BROADBAND, INC.  
11633 Hwy 92 West, Chase City, VA 23924

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## I. Executive Summary

EMPOWER Broadband, Inc. (EMPOWER) is a wholly-owned subsidiary of Mecklenburg Electric Cooperative (MEC) created to bridge the digital divide in rural Southside Virginia by bringing ultra-high-speed fiber-to-the-premise (FTTP) to those unserved and underserved regions across MEC's service territory and its surrounding communities.

## II. Marketing Plan Summary

### 1. The Business

*Name:* EMPOWER Broadband, Inc.

*Structure:* Wholly-owned subsidiary of Mecklenburg Electric Cooperative

*Location:* 11633 Hwy 92 West, Chase City, VA 23924

*Incorporated:* 2019

*Owner:* Mecklenburg Electric Cooperative

*Experience:* MEC was established in 1938, by the members, for the members, at a time when rural Southside Virginia did not have access to electricity. For over 80 years, MEC has provided power to the rural citizens across portions of nine southern Virginia counties and five northern North Carolina counties. MEC understands the needs of rural citizens and how to operate a successful business with limited funds and lower density per mile. MEC has the infrastructure in place to hang fiber and a workforce that can capably design and implement fiber deployment. The MEC team has significant experience in line construction – having already strung portions of fiber to the offices and substations. Additionally, MEC's IT team has experience in network and fiber-to-the-premise broadband.

*Products/Services:* EMPOWER provides middle-mile capacity, retail high-speed internet service, as well as voice over IP telephony, high-speed data services, and advanced cloud-based solutions, to over 4,000 accounts in the cooperative's service territory in Southside Virginia and northern North Carolina

### 2. The Future

*Vision Statement:*

To further enhance the quality of life for the members and communities served by Mecklenburg Electric Cooperative by providing fiber-to-the-premise.

EMPOWER's initial goal has been, to complete the deployment of the fiber backbone reaching 135 miles across MEC's service territory – connecting 14 substations, the three

district offices (Emporia, Chase City and Gretna) and the headquarters' office together within 36 months to provide needed smart grid technology for MEC's distribution system and to extend FTTP to MEC members, or citizens that live within 1,000 foot of the backbone by utilizing MEC employees installing the backbone and initiating a foundation for the EMPOWER subsidiary.

Additionally, MEC continues planning fiber deployment to its remaining substations, as well as unserved and underserved routes extending from that backbone, while EMPOWER seeks to secure funding for additional FTTP customers along and adjacent to those routes.

EMPOWER's long-term goal is to extend fiber throughout MEC's service territory.

### **3. The Market**

EMPOWER's target market begins with the members of MEC. There are nearly 3,000 members within the initial 1,000-foot backbone project. At an estimated 45.3% take rate, EMPOWER anticipates a minimum of 1,359 FTTP customers by March 2021. Including additional fiber projects already scheduled and/or completed, 3,270 FTTP customers are expected by 2022.

Currently, EMPOWER has the potential to serve a minimum of 30,158 homes, farms, and businesses across six counties, including those specifically outlined in this grant proposal, where MEC currently provides electric utility services.

- City of Emporia – 189 homes passed
- Mecklenburg County – 414 homes passed
- Halifax County – 1153 homes passed

EMPOWER Broadband will utilize cost-saving measures by soliciting only prospective customers throughout the build. Items such as direct-mailers, brochures, yard signs, rack cards and door hangers will be purchased and used to contact members as fiber is being installed along those lines within 1,000 feet of their home. Additionally, this targeted approach directly and specifically engages those homes within the initial 1,000 foot.

### **4. The Finances**

Mecklenburg Electric Cooperative is spending \$2.6 million dollars to build the fiber optic backbone across its utility infrastructure to connect its substations and district offices – creating a fiber ring. The cost to supply high-speed fiber optic cables to the entire MEC service area is estimated at \$85 million.

Additional funds have, and will continue to be, pursued with grant funding from organizations, such as the Virginia Tobacco Region Revitalization Commission (VTRRC),

The Virginia Telecommunication Initiative (VATI), and the Federal Communications Commission's (FCC) Connect America Funds (CAF), which will be used to fund FTTP installations of EMPOWER Broadband accounts.

### III. **Business Overview**

EMPOWER Broadband, Inc. provides middle-mile capacity, retail high-speed internet service, as well as voice over IP telephony, high-speed data services, and advanced cloud-based solutions, to over 4,000 accounts in the cooperative's service territory in Southside Virginia and northern North Carolina.

In April 2019, EMPOWER Broadband, Inc. joined forces with Buggs Island Telephone Cooperative, located in Bracey, Virginia, acquiring both its current telephone and broadband customers, who are mutual Mecklenburg Electric Cooperative members. All broadband and telephone customers are now served by EMPOWER Broadband, Inc.

### IV. **The Future**

#### 1. **Vision Statement:**

To enhance Mecklenburg Electric Cooperative's grid with a communications network – with a redundant fiber optic backbone at its core – to enable metering, smart grid, distributed generation, and direct connectivity for smart home appliances.

To further enhance the quality of life for the members and communities served by Mecklenburg Electric Cooperative by providing fiber-to-the-premise.

#### 2. **Mission Statement:**

To bridge the digital divide for MEC members and the surrounding communities by providing high-speed broadband to create jobs, attract new businesses, improve education and healthcare, and boost the local economy.

- Create Jobs/Attract Business – By providing the local community with the necessary internet speeds to attract businesses to the area, job opportunities will increase.
- Education – By providing students, teachers and administration with the necessary internet speeds, both teaching and learning will be transformed.
- Healthcare – By helping bring physicians state-of-the-art equipment to the rural healthcare facilities of Southside Virginia with FTTP that will deliver world class

opportunities for remote patient care in the home, and with bandwidth that will support video diagnosis and communication or data downloads from advanced medical equipment.

- Economic Development – By having high-speed internet, rural Southside Virginia will become a hub for industry and growth.

### 3. Goals:

#### Short Term

To complete the deployment of a fiber backbone reaching 135 miles across MEC's service territory – connecting its substations, the three district offices (Emporia, Chase City and Gretna) and the headquarters' office within 36 months (March 2021) by utilizing MEC's employees to provide needed smart grid technology for MEC's distribution system.

To extend fiber-to-the-premise to MEC members, or citizens who live within 1,000 foot of the backbone, as well as other funded routes along the backbone, by utilizing MEC employees to install the backbone and initiate a foundation for the EMPOWER Broadband subsidiary. Additionally, contract deployment crews have been added to complete construction within the established schedule and strategic plan.

#### Long Term

EMPOWER Broadband, Inc. will extend fiber throughout MEC's service territory and/or local communities based on a take-rate approach.

## V. The Market

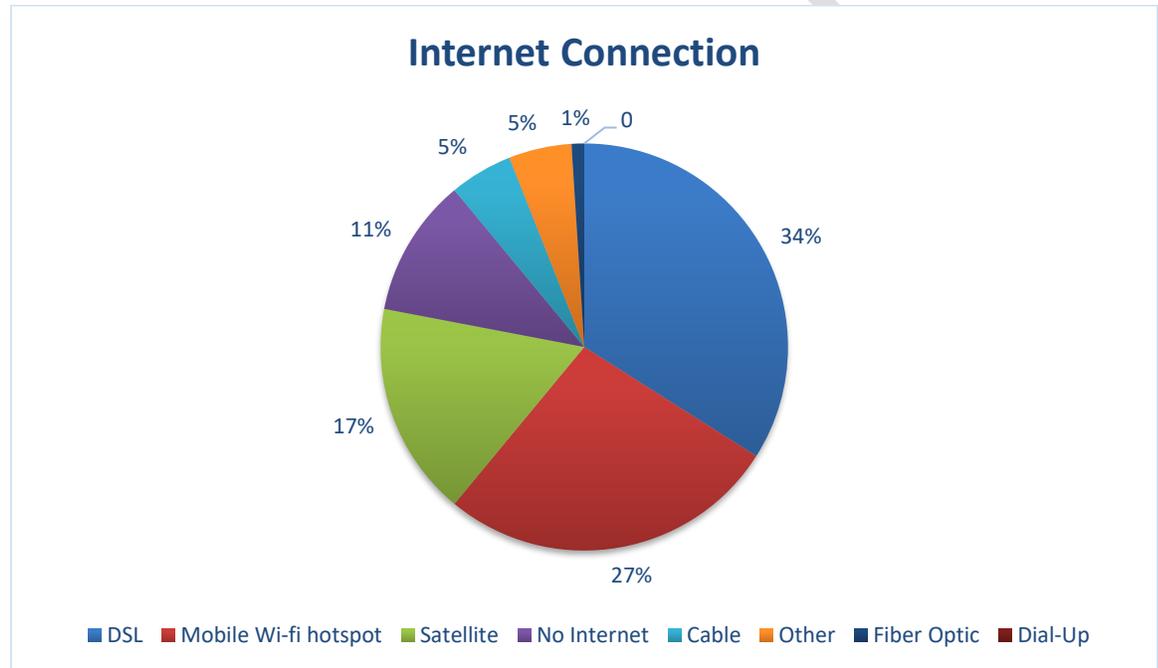
### 1. Unique Selling Position

Established in 1938, Mecklenburg Electric Cooperative is a not-for-profit, member-owned electric cooperative formed by the community for the sole purpose of providing electricity to the rural citizens of Southside Virginia. Over time, MEC has built a reputation of trust, commitment and service excellence among its membership. Today, the members of MEC are unable to acquire affordable, dependable, and sufficient high-speed internet services. MEC is uniquely situated in the unserved and underserved areas of Southside Virginia where high-speed internet is overpriced, unreliable and, in most cases, simply unavailable. Already having the infrastructure in place to easily add fiber cables, a skilled and capable workforce, an established potential customer base, and an established reputation

for excellent service and commitment, EMPOWER is perfectly situated to provide retail internet services throughout the service territory of MEC.

## 2. Market Research

Currently, over 60 cooperatives across the nation have, or are in the process, of providing their rural members with high-speed fiber-optic internet. According to MEC's most recent Residential Energy Survey conducted by Olson, 83% of MEC members use their PC/Laptop to connect to the internet with the following internet connections:



Internet service from satellite and dial-up services are too slow, latency laden, and unreliable for modern applications while DSL is well oversubscribed. With only one percent of our members having access to fiber-optic internet service, it is imperative that MEC share with its membership high-speed internet using the fiber-optic cables installed along its system.

## 3. Target Market

### Members of MEC

MEC has nearly 3,000 members within the initial 1,000-foot backbone buildout. At an estimated 45.3% take rate, EMPOWER forecasts 1,359 customers within the first 36 months of operation.

Following the initial backbone phase, MEC has the potential to serve a minimum of 30,158 accounts across the following six counties, which MEC currently serves:

\* Pittsylvania – 6,559

\* Halifax – 5,950

\* Charlotte – 1,169

\* Mecklenburg – 10,130

\* Brunswick – 3,749

\* Greenville – 2,601

*\*Totals as of June 2020*

It should be further noted that this backbone will create the infrastructure to deliver a tree and branch approach for deploying fiber services to more unserved homes deeper into rural Southside Virginia.

Accordingly, MEC/EMPOWER has already secured funding and begun additional construction in the following areas:

Brunswick County – An additional 68.82 miles are being built to serve 844 households near Gasburg, Valentines and Wyche, Virginia. This is a six-year work plan beginning in 2020.

Halifax County – A one-year work plan has begun to feed 679 homes across various portions of Halifax; including Lower Liberty, Meadville, Northwest Halifax and Virgilina, which will add an additional 37.23 miles of fiber facilities.

Mecklenburg County – Approximately one mile of line has been run to include the new Mecklenburg County Junior and Senior High Schools, which are currently under construction. This line passes an additional 10 homes that have all been connected to fiber.

Pittsylvania County – An additional 9.2 miles of line will be constructed from Mt. Airy to Grit in 2021 and will pass 174 more homes.

With the acquisition of Buggs Island Telephone, EMPOWER also acquired additional fiber assets in portions of Mecklenburg and Brunswick Counties, including Holly Grove, Long Branch, Joyceville, Great Creek and Morristown Subdivisions.

Projected future projects include facilities passing:

96 consumers in Greenville County with an additional 3.18 miles of main line fiber.

414 consumers within Tanglewood Subdivision in Mecklenburg County totaling 22.33 miles of consumer access fiber.

1,250 consumers throughout portions of Halifax County with an additional 77.52 miles of main line.

Communities in close proximity to MEC lines

Although the initial priority of EMPOWER Broadband is to provide high-speed internet access to the members of MEC, community interest/need will be the driving factor of broadband cable placement and access following the initial backbone build.

For example, we have worked with Mid-Atlantic Broadband to provide services to a call center in the town of Lawrenceville, Virginia and we'll continue to work with local townships that are not directly served by MEC to ensure economic development for our rural communities.

#### 4. Marketing Strategy

Marketing Activity	Person Responsible	Date of expected completion
Introduction Letter (services coming) Direct Mail to eligible members	Member & Energy Services Team	Mail once make-ready construction begins at location
Letter to include services and contract Direct Mail to eligible members	Member & Energy Services Team	Mail when make-ready work is complete
Postcards	Member & Energy Services Team	Mailed 3 weeks after contract letter
Door Hangers/Door to Door	Member & Energy Services Team	Used during installation phase
Yard Signs	Member & Energy Services Team	Displayed at property where services are connected
Rack Cards	Member & Energy Services Team	Complete
Brochures	Member & Energy Services Team	Complete
Website	Member & Energy Services Team	Complete
Giveaway Items	Member & Energy Services Team	Complete

<p>Branding Materials (shirts, tent, table cover, display stand)</p>	<p>Member &amp; Energy Services Team</p>	<p>Complete</p>
--	--	-----------------

## VI. The Finances

### 1. Price

Residential pricing structures are as follows:

**EMPOWER BROADBAND**  
Powered by MEC

Now offering Fiber-to-the-Home Broadband Service.

Get the fastest and most dependable internet speeds available today.

**CALL TODAY TO SIGN-UP!**  
Also offering home telephone service.

### Residential Pricing

Premium Package	Ultra Package	Super Package	Lightning Package
\$69.95 Month	\$119.95 Month	\$199.95 Month	\$269.95 Month
Add home phone for \$30.00			
<b>Total \$99.95</b>	<b>Total \$149.95</b>	<b>Total \$229.95</b>	<b>Total \$299.95</b>
Up to 50/50 Mbps	Up to 100/100 Mbps	Up to 300/300 Mbps	1 GIG

\*All prices include in-home Managed Wireless Router.

Commercial pricing structures are as follows:

**EMPOWER BROADBAND**  
Powered by MEC

Now offering Fiber-to-the-Premise Broadband Service.

Get the fastest and most dependable internet speeds available today.  
**CALL TODAY TO SIGN-UP!**  
Also offering telephone service.

### Business Pricing

Small Business Premium Solution	Small Business Ultimate Solution	Customized Enterprise Solution
<b>\$89.95 Month</b>	<b>\$139.95 Month</b>	<b>Call Today!</b>
Speeds up to 50 Mbps <small>Help your business reach new heights with premium speeds. 50 Mbps download/50 Mbps upload and employees will no longer have to wait on that buffering symbol to get the job done. Recommended for &lt; 3 employees</small>	Speeds up to 100 Mbps <small>With 100 Mbps internet service, the power is now in your hands. With ultimate speeds, 100 Mbps download/100Mbps upload - your business will have the speeds it needs to accomplish more than ever. Recommended 5-10 employees</small>	<small>In today's business world, you need the fastest, most reliable internet service. We understand that, and at EMPOWER, we can customize a network solution to meet your enterprise data and phone requirements. Call us today for a free quote. Recommended for 10+ employees</small>

## 2. Expected Sales

Per EMPOWER's VTRRC grant funding guidelines, MEC will provide FTTP services to a minimum of 1,300 customers by March 2021. With all additional building projects expected between 2020 to 2022, at an expected take rate of 45.3%, an anticipated 3,270 FTTP customer connections are projected.

EMPOWER's market research indicates the average take rate of 45.3% for these initial installations along the backbone route, as well as additional routes outlined in these proposed VATI grant areas, are both obtainable and reasonable .

## 3. Monitoring/Measurement Activities

EMPOWER Broadband will monitor early customer sign-ups per phase of fiber cable installed. If forecasts are not met with above marketing material, EMPOWER will take more aggressive measures to reach potential customers, i.e. door-to-door visits, phone calls, etc.

## 4. Crisis Management

During the event of unexpected and disruptive events, such as the ones experienced with COVID-19, both Mecklenburg Electric Cooperative and EMPOWER Broadband, Inc., will take the necessary precautions to ensure the safety of its employees, customers and the public -- first and foremost. With that said, we understand that dependable, high-speed internet access is needed more than ever for our community to thrive. Our crews, as well as contract crews, have continued to work around the clock and will continue to do so as long as government restrictions permit. Keeping in mind that utilities are "essential businesses," we must continue to perform daily work to ensure our members and customers have access to electricity and communications mediums during any crisis.

The following COVID-19 precautions are currently in place for Mecklenburg Electric Cooperative and EMPOWER Broadband, Inc.:

- **NO ONE** except for MEC/EMPOWER employees and directors is allowed in any of the cooperative's facilities, including family members.
- If anyone in an employee's home is sick or running a temperature, the direct supervisor must be notified, and the employee stays home until the person who is sick has been at least 24 hours without a fever.
- All employees must maintain the 6-foot social distancing standard and not congregate in close quarters.

- There is no gathering of more than 10 employees and only then if absolutely necessary. We recognize that outside employees work in the general vicinity of each other; and even then, employees must distance whenever possible.
- Avoid physical contact with co-workers.
- Cleaning services have been doubled at our facilities with emphasis on disinfectant wipe downs on door knobs, push-bars and other areas that get heavy hand contact.
- All business travel requiring airlines is prohibited. Personal travel is strongly discouraged. Supervisor must be notified of all travel outside of region.
- Bottles of disinfecting hand cleaner are available throughout each district office. Employees are encouraged to use frequently.
- There is limited interoffice travel and interaction among the districts and the EMPOWER Headquarters in Bracey.
- Lobbies are closed to all traffic and will remain closed until further notice.
- Employees are encouraged to bring their lunches and limit interaction with others at restaurants or food service establishments during lunch.
- Outside employees are to limit any interaction with others while in the field. If approached by a member/customer or other individual, employee will politely let them know that they must keep a safe distance and that they can contact the office by phone for assistance.
- Outside employees will avoid coming into the buildings whenever possible.
- Home fiber installs will continue at the discretion of the independent contractor. The contractor will pick up the equipment needed outside the back door, and return all paperwork using outside drop box.
- EMPOWER technicians are dispatched from home for new phone and internet installs and trouble calls and will pick up equipment in the same manner as the independent contractor.
- All deliveries to offices are delivered to outside dock and/or porch. No entry!
- Any employee with a dry cough, high fever, shortness of breath, or any other COVID-19 symptoms, is to stay at home until symptoms have ceased 24 hours have lapsed without a fever.



# HOW FAST WILL THE INTERNET SERVICE OFFERED BY EMPOWER BROADBAND REALLY BE?

- The basic package will offer 50 Mbps download / 50 Mbps upload.
- Speeds will provide simultaneous video to at least five separate devices with no buffering.
- A four-minute song can be downloaded in 6/10's of a second.
- A 45-minute TV show can be downloaded in 30 seconds.
- For the most demanding user, EMPOWER Broadband's fiber will be capable of delivering speeds up to 1 Gig.

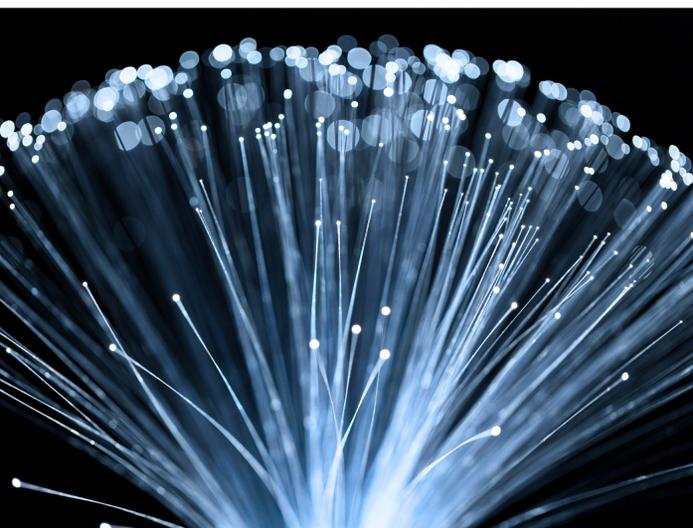
Fiber will provide the absolute fastest and most reliable communication medium for the next generation. In other communities, the deployment of fiber broadband has led to increased property values, fostered economic development and has had a marked impact on educational and training opportunities.



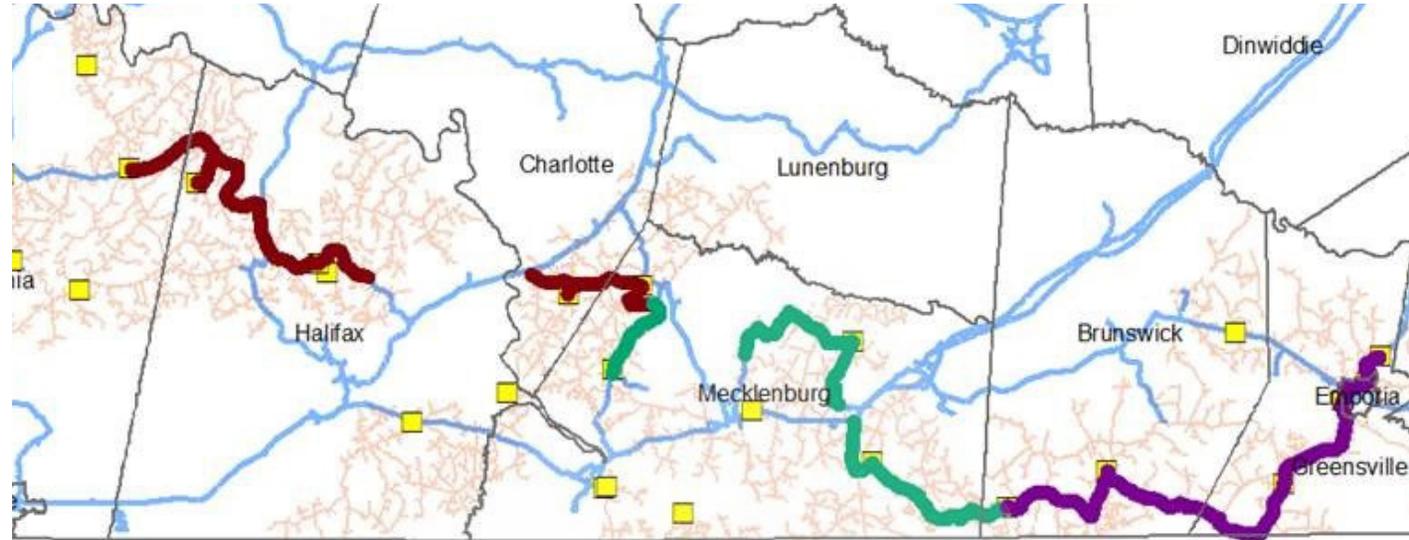
## CONTACT US

+1 434-372-6244  
EMPOWER@meckelec.org  
www.meckelec.org

11633 Hwy 92 W  
Chase City, VA 23924



# Proposed Backbone Route



Mecklenburg Electric Cooperative will deploy fiber optic cable across its system to connect its substations and district offices.

## What is FTTP?

EMPOWER Broadband, a wholly-owned subsidiary of Mecklenburg Electric Cooperative (MEC), will deploy fiber optic cable to homes and businesses; the connection from the fiber backbone to individual buildings is referred to as “Fiber-to-the-Premises (FTTP).”

## What is the EMPOWER Broadband pilot project?

MEC’s EMPOWER Broadband pilot project will utilize \$2.6 million in Tobacco Region Revitalization Commission grant funds to deploy fiber to connect consumers within 1,000 feet of a 135-mile fiber backbone crossing portions of Brunswick, Charlotte, Greenville, Halifax, Mecklenburg, and Pittsylvania counties.

## Will my home be within 1,000 feet of the backbone line?

We are currently engineering the exact route the backbone line will traverse; a map showing the most current proposed path is attached. Additional information will be forthcoming at [www.meckelec.org](http://www.meckelec.org).

## When will EMPOWER Broadband be available to every MEC member?

The deployment schedule is largely dependent on the availability of funds. EMPOWER Broadband will continue to aggressively seek grant funds to extend services across the MEC system and beyond.

## Why fiber as opposed to wireless or other technologies?

- ✓ An all-fiber network provides our communities with communications capabilities, educational and training opportunities, and economic development infrastructure resources that rival the best in the world and it can be upgraded without laying new fiber.
- ✓ Wireless internet solutions offer the advantage of quick deployment and a marginally lower cost; however, wireless is challenged in scalability, reliability, and security. Trees, buildings, and weather impact wireless service. Wireless internet can be compared to the reliability of your cell phone. Wireless may be good for mobility, but it does not offer competitive speeds or the unmatched reliability of wired connections.
- ✓ A fiber network provides the foundation for all wireless solutions.

## When will construction begin and who will do the work?

Fiber construction has started from our central location in the Chase City Headquarters office to Highway 360. Lines will continue to be built both east and west. The installation of fiber directly connecting to homes and businesses will begin as early as August. The retail fiber deployment will be performed by contractors under the direction of MEC personnel. This method of deployment allows MEC crews to continue critical electric system construction and maintenance while also expediting the installation of FTTP.

## How much will this service cost?

The 50 Mbps package will cost between \$65 and \$75 per month for a residential consumer, which also includes a WIFI enabled router. For less than \$100 per month, EMPOWER will also offer a bundle package to include home telephone service.

# MORE THAN JUST INTERNET

## ACCESS A WORLD OF OPPORTUNITIES

- Telephone
- Television
- Education
- Healthcare
- Gaming
- Security

*May require additional subscriptions*

PACKAGES  
START AT JUST  
**\$69.95**  
PER MONTH

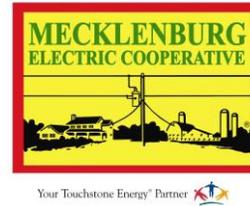
# COMING SOON!

Your home is along our FIBER route and will be eligible to receive EMPOWER's *super-fast* internet service! Watch your mailbox for more exciting details.

EMPOWER Broadband, Inc.

434-372-6244 ~ [empowermec.net](http://empowermec.net) ~ [empower@meckelec.org](mailto:empower@meckelec.org)





DATE

ADDRESS

Dear Resident,

This letter is to inform you that Mecklenburg Electric Cooperative's (MEC) fiber optic cable network has been installed within 1,000 feet of your home and you are eligible to receive high-speed internet and phone service from EMPOWER Broadband. Now you too can watch that new show on Netflix that everyone is talking about, and your kids or grandkids can do homework over the internet!

For months we've been touting MEC's fiber "backbone" as we sought approval from the Virginia State Corporation Commission (SCC) for our EMPOWER Broadband Fiber-To-The-Home subsidiary! On January 30, 2019, we cleared the final hurdle as the SCC granted the needed approvals.

**GOOD NEWS!**

For years, Mecklenburg Electric Cooperative has built and maintained its own complex communications network... our expertise is second to none! We'll use that expertise to build a robust fiber optic network to accommodate the growing need to transfer data between substations and offices. That need will be met through the deployment of fiber optic cable. This fiber "backbone" offers a great opportunity for those who live within 1,000 feet of the backbone to receive ultra-high-speed fiber broadband.

**THE BEST NEWS!!**

The days of settling for slow internet are over! You asked, and we listened. EMPOWER Broadband, a subsidiary of MEC, will bring you -- not just fast -- but THE FASTEST and most reliable internet available anywhere with the same great customer service you have come to expect from your electric cooperative!

**Go Ahead...Get EXCITED!**

Let's get started! Sign and return the attached 2-year Residential Service Contract for broadband internet by April 12 and we'll begin designing the fiber connection to your home. Act now and receive a limited-time offer for free installation! Bundle internet with a 2-year home telephone service contract and **we'll waive the \$100 broadband installation and the \$30 phone activation fees.**

Choose EMPOWER Broadband as your service provider today... it's backed by a team you know and trust and who has served Southside Virginia capably and responsibly since 1938. With residential speeds starting at 50 Megabits per second and **unlimited** data usage for \$69.95 a month, you don't have to settle for less anymore!

Sincerely,

David Lipscomb  
VP Member & Energy Services

# OPEN A WORLD OF OPPORTUNITY

with the fastest, most reliable internet available anywhere.

NO DATA CAPS

NO THROTTLING

NO LIMITS!



START AT JUST

**\$69.95**

PER MONTH

COMPLETE THE RESIDENTIAL SERVICE CONTRACT  
FOR INTERNET SERVICE ONLY  
BY APRIL 12

NEW  
OFFER

**SAVE \$50.00**

Bundle EMPOWER BROADBAND'S  
INTERNET AND HOME-TELEPHONE SERVICE  
BY APRIL 12

**SAVE \$100.00**

EMPOWER Broadband, Inc.

434-372-6244 ~ [empowermec.net](http://empowermec.net) ~ [empower@meckelec.org](mailto:empower@meckelec.org)

*Sorry We Missed You!*

**EMPOWER**

BROADBAND  
*Powered by MEC*

**High-Speed Fiber  
Internet is Available to You**

**LIMITED TIME FOR  
SPECIAL DISCOUNTS**

COMPLETE THE  
RESIDENTIAL SERVICE CONTRACT  
FOR INTERNET SERVICE  
BY APRIL 15

**SAVE \$50**  
ON INSTALLATION

**OR**

BUNDLE  
INTERNET AND  
HOME-PHONE SERVICE  
BY APRIL 15

**SAVE \$100**  
ON FREE INSTALLATION

434-372-6244  
[www.empowermec.net](http://www.empowermec.net)

**YOU ARE INVITED**

Want to learn more about how **EMPOWER**  
can help you **ACCESS THE WORLD?**

Come by our office on Wednesday, April 10  
anytime between 3:00 p.m. – 7:00 p.m. for  
refreshments and a quick demonstration  
on how 50 Mbps can open up a world of  
opportunity for you and your family and  
**SAVE YOU MONEY!**

Mecklenburg Electric Cooperative  
11633 Hwy 92  
Chase City, VA 23924

**MORE THAN JUST INTERNET**

Come by and see the amazing opportunities  
available to your home!

- Telephone
- Television
- Education
- Healthcare
- Gaming
- Security

*May require additional subscriptions*

PACKAGES START  
AT JUST  
**\$69.95**  
PER MONTH

**EMPOWER**

BROADBAND  
*Powered by MEC*



SERVED BY

# EMPOWER



BROADBAND

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**[www.empowermec.net](http://www.empowermec.net)**

**(434) 372-6244**

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BROADBAND

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(434) 372-6244



50

Congrats

years

TANGLEWOOD SHORES  
GOLF AND COUNTRY CLUB



*Empowering Southside Virginia...one fiber at time!*

**EMPOWER**

**BROADBAND**

*Powered by MEC*

[www.empowermec.net](http://www.empowermec.net)

**EMPOWER**  
BROADBAND  
Powered by MEC

**EMPOWER**  
BROADBAND

**EMPOWER**  
BROADBAND  
Powered by MEC

INSTRUCTIONS  
1. Peel off the top layer  
of the sticker.

**Dina Blanton**

---

**From:** skip foy <recre8tor@yahoo.com>  
**Sent:** Monday, August 17, 2020 12:53 PM  
**To:** Dina Blanton  
**Subject:** Higher bandwidth requirements  
**Attachments:** Screenshot (3).png

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

We need higher speed internet in the Bracey area due to the increasing need for internet service for everyone and the extremely low speed we are offered in this area.

I am a member of the American Legion, Lake Gaston Home Owners Associations Group of 26 HOA's, Tanglewood Shores Golf and Country Club committees, and possibly soon to be on the Board of Directors of Tanglewood Shores. Each of these organizations requires research, PowerPoint presentations, and reports. Additionally, in the current worldwide situations, we are doing Zoom Meetings, live chats, and many other applications requiring much higher band with than is offered today, as evidenced by the attached screenshot of my Speed Test, in this area.

Thank you,

**Skip Foy**

120 Hawthorne Dr.

Bracey, Va. 23919

Optimist Club of Lake Gaston

Helping bring out the best in YOUTH, YOURSELF & COMMUNITY.

**Start Download**

Update missing drivers in less than 2 minutes (free).

Driver Reviver

Get Started

SHARE

Result ID: 9928095716

PING ms: 56

DOWNLOAD Mbps: 2.85

UPLOAD Mbps: 0.69

RESULTS SETTINGS

GO

Connections: Multi

VA SkyWire, LLC  
Richmond, VA  
Change Server

BIT Communications  
137.118.245.257

HOW DOES YOUR NETWORK AVAILABILITY COMPARE WITH YOUR EXPECTATIONS?

1	2	3	4	5
Much worse	As expected	Much better		

THANKS FOR YOUR FEEDBACK

Having Internet Problems?

Popular services with reported issues

CenturyLink<sup>®</sup> Internet

with Price For Life

**\$49/mo**

Rate requires paperless billing and excludes taxes. Additional fees apply. Get the fastest Internet service available at your home (max speed is up to 100 Mbps).

Learn More

## Dina Blanton

---

**From:** Suzanne cranford <cranford@bitbroadband.com>  
**Sent:** Monday, August 17, 2020 11:54 AM  
**To:** Dina Blanton  
**Subject:** Speed Test

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Good morning! I am emailing you to stress how important better internet speeds are for our neighborhood. Our children will be remotely learning soon. We have four people in our household who will need to access the internet for school. I ran a speed test this morning and there is no way that we can do this with the speeds we are receiving. Please consider helping our neighborhood and especially our children during this trying time with the COVID pandemic going on. Thank you so much for your consideration.

Suzanne Cranford  
115 Fairview Ter.  
Bracey, VA 23919

<https://www.speedtest.net/result/9927828455.png>

This link should give you the speed test that I ran, but please let me know if it doesn't work and you need any further information. Thanks again!

🔄 SPEEDTEST

@Speedtest by Ookla

8/17/2020

3:36 PM GMT

🕒 PING

120

ms

⬇️ DOWNLOAD

1.77

Mbps

⬆️ UPLOAD

0.26

Mbps

RATING

Slower than 93% of US

ISP

BIT Communications

HOST

Raleigh, NC, ~ 50 mi

## Dina Blanton

---

**From:** Kellie <kelliepearce@hotmail.com>  
**Sent:** Monday, August 17, 2020 12:12 PM  
**To:** Dina Blanton  
**Subject:** Speed test

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

I'm at 492 Beechwood Drive in Tanglewood. We pay for 10 and only get 4.94. Thanks Kellie

12:02 ↗

◀ Snapchat

🔒 speedtest.net

🔄 SPEEDTEST

⬇️ DOWNLOAD Mbps

4.94

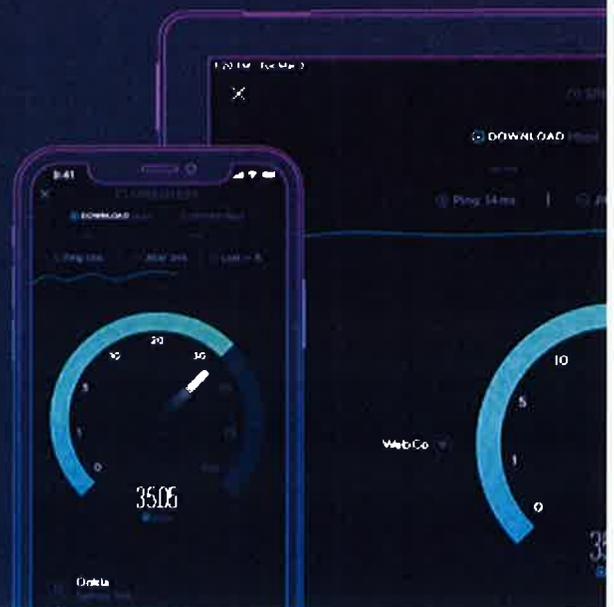
🔄 Ping 53 ms

👤 BIT Communications

Test

🔄 SPEEDTEST  
for iOS & iPadOS

- ⬇️ Advanced speed metrics
- 🌐 Server selection
- ✅ Results



## Dina Blanton

---

**From:** April Seamster <luv\_my\_fox@yahoo.com>  
**Sent:** Monday, August 17, 2020 11:56 AM  
**To:** Dina Blanton  
**Subject:** Speed issues

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

The following is my speed test result. I have children in school and depend on the internet for them to complete their studies.

11:54 ↗



🔒 speedtest.net

🔄 SPEEDTEST

⬇️ DOWNLOAD Mbps

2.52

🔄 Ping 40 ms

👤 BIT Communications

Test

🔄 SPEEDTEST<sup>®</sup>  
for iOS & iPadOS

- ⬇️ Advanced speed metrics
- 🌐 Server selection
- ✅ Results



## Dina Blanton

---

**From:** April Seamster <luv\_my\_fox@yahoo.com>  
**Sent:** Monday, August 17, 2020 12:23 PM  
**To:** Dina Blanton  
**Subject:** Carlton Morris

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

I run a business from home and I have a granddaughter that will need higher speed internet for school. The speeds I currently receive make it hard to complete daily tasks over the internet.

11:22 ↗



# SPEEDTEST



Type

Date



Mbps



Mbps



12/14/19  
12:45 PM

2.14

0.68



12/14/19  
12:44 PM

2.26

0.74



12/14/19  
12:34 PM

1.93

0.54



12/14/19  
12:29 PM

2.42

0.62



12/14/19  
11:24 AM

2.87

0.71



12/14/19

2.02

0.77



## Dina Blanton

---

**From:** andrea farmer <apfarmer@hotmail.com>  
**Sent:** Monday, August 17, 2020 12:12 PM  
**To:** Dina Blanton  
**Subject:** dsl speed test

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)  
In an age where everything is online... my service is dismal:

Download speed: 3.99  
upload speed: 0.54

Andrea L. Farmer  
174 Aspen Way  
Bracey, Virginia 23919

## Dina Blanton

---

**From:** Kristi Rook <kristirook67@gmail.com>  
**Sent:** Monday, August 17, 2020 12:35 PM  
**To:** Dina Blanton  
**Subject:** internet lag

\*\*\*\*\*NOTICE\*\*\*\*\* This message originated outside of Mecklenburg Electric Cooperative (Please use -Extreme Caution- when opening attachments, clicking links or responding to requests for information!)

Hi,

My name is Kristi Rook and I currently live in Tanglewood at 208 Aspen Way Bracey, VA. I have noticed that my internet has been lagging horribly and I need effective internet for my Grandson who will be virtual learning this year and I work from home most days as well. I am not currently at home to do a speed test but I can tell you that the connection is absolutely horrible and this will cause problems with school and work assignments. I appreciate any help you can give me.

Sincerely,

--  
Kristi J. Rook  
SOVA Realty  
434-594-7704  
[kristirook67@gmail.com](mailto:kristirook67@gmail.com)